



Estuary 5: Milford

Watershed Summary

WATERSHED DESCRIPTION AND MAPS

The Milford Estuary (Estuary 5) covers an area of approximately 13,431 acres in southwestern Connecticut. These impaired segments are located in the central portion of Long Island Sound (LIS). Most of the impaired segments in this summary are located in the municipality of Milford, though one segment is located partially in West Haven, CT.

The Milford Estuary includes two segments impaired for commercial shellfish harvesting and four segments impaired for direct shellfish harvesting due to elevated bacteria levels. These segments were assessed by Connecticut Department of Energy and Environmental Protection (CT DEEP) and included in the CT 2010 303(d) list of impaired waterbodies. Some segments in the estuary are currently unassessed as of the writing of this document. This does not mean there are no potential issues on these segments, but indicates a lack of current data to evaluate the segments as part of the assessment process. An excerpt of the Integrated Water Quality Report is included in Table 1 (CT DEEP, 2010).

Impaired Segments

Segment 1: LIS CB Inner – Milford Harbor & Gulf Pond (CT-C1_018-SB) is part of the inner estuary from the mouth of the Gulf at Burns Point to the saltwater limit at the New Haven Avenue crossing through Milford Harbor and to the saltwater limit upstream of the Interstate 95 crossing through Gulf Pond in the Indian River. Segment 2: LIS CB Inner – Housatonic River (mouth) (CT-C1_019-SB) is part of the inner estuary from the mouth of the Housatonic River between Sniffens Point and Milford Point upstream to the US Route 1 crossing, and includes Nells Island area, lower Beaver Brook, Goose Island, and Crimbo Point.

These impaired segments of the Milford Estuary have a water quality classification of SB. Designated uses include commercial shellfish harvesting, recreation, habitat for marine fish and other aquatic life and wildlife, industrial water supply, and navigation. Segments 1 (CT-C1_018-SB) and 2 (CT-C1_019-SB)

Impaired Segment Facts

Impaired Segments, Classifications, and Areas (square miles):

Segment 1: LIS CB Inner – Milford Harbor & Gulf Pond (CT-C1_018-SB); SB; 0.27

Segment 2: LIS CB Inner – Housatonic River (mouth) (CT-C1_019-SB); SB; 0.81

Segment 3: LIS CB Shore – Walnut Beach (CT-C2_023); SA; 0.58

Segment 4: LIS CB Midshore – Milford (CT-C3_017); SA; 8.10

Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I); SA; 0.57

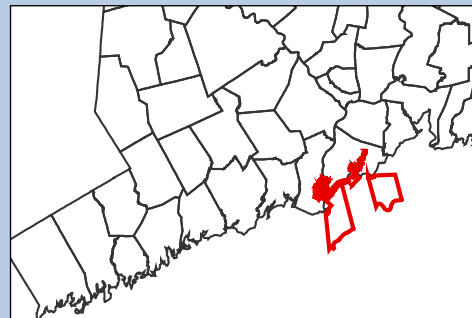
Segment 6: LIS CB Midshore – Milford Point (CT-C3_020); SA; 10.66

Municipalities: Milford and West Haven

Designated Use Impairments: Shellfish

MS4 Applicable? Yes

Applicable Season: Recreation Season (May 1 to September 30), Year Round for Shellfish Uses



of the estuary are impaired due to elevated bacteria concentrations, affecting the designated use of commercial shellfishing.

Segment 3: LIS CB Shore – Walnut Beach (CT-C2_023) extends from the shoreline to approximately 1,000 feet offshore in Milford, CT. Segment 3 is located in Milford from Milford Point to Silver Sands State Park Beach area, and includes Walnut Beach and the mouth of the Housatonic River.

Segments 4 – 6 in LIS begin approximately 1,000 feet offshore beyond Segment 3 (CT-C2_023) out to the 50-foot contour line. Segment 4: LIS CB Midshore – Milford (CT-C3_017) is located in Milford and West Haven along the boundary of outer New Haven Harbor. Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) is located in Milford from outer Silver Sand Beach area to Charles Island. Segment 6: LIS CB Midshore – Milford Point (CT-C3_020) is located in Milford along the outer mouth of the Housatonic River.

These impaired segments (Segments 3 – 6) of the Milford Estuary have a water quality classification of SA. Designated uses include shellfish harvesting for direct human consumption, recreation, habitat for marine fish and other aquatic life and wildlife, industrial water supply, and navigation. These segments of the estuary are impaired due to elevated bacteria concentrations, affecting the designated use of direct shellfishing.

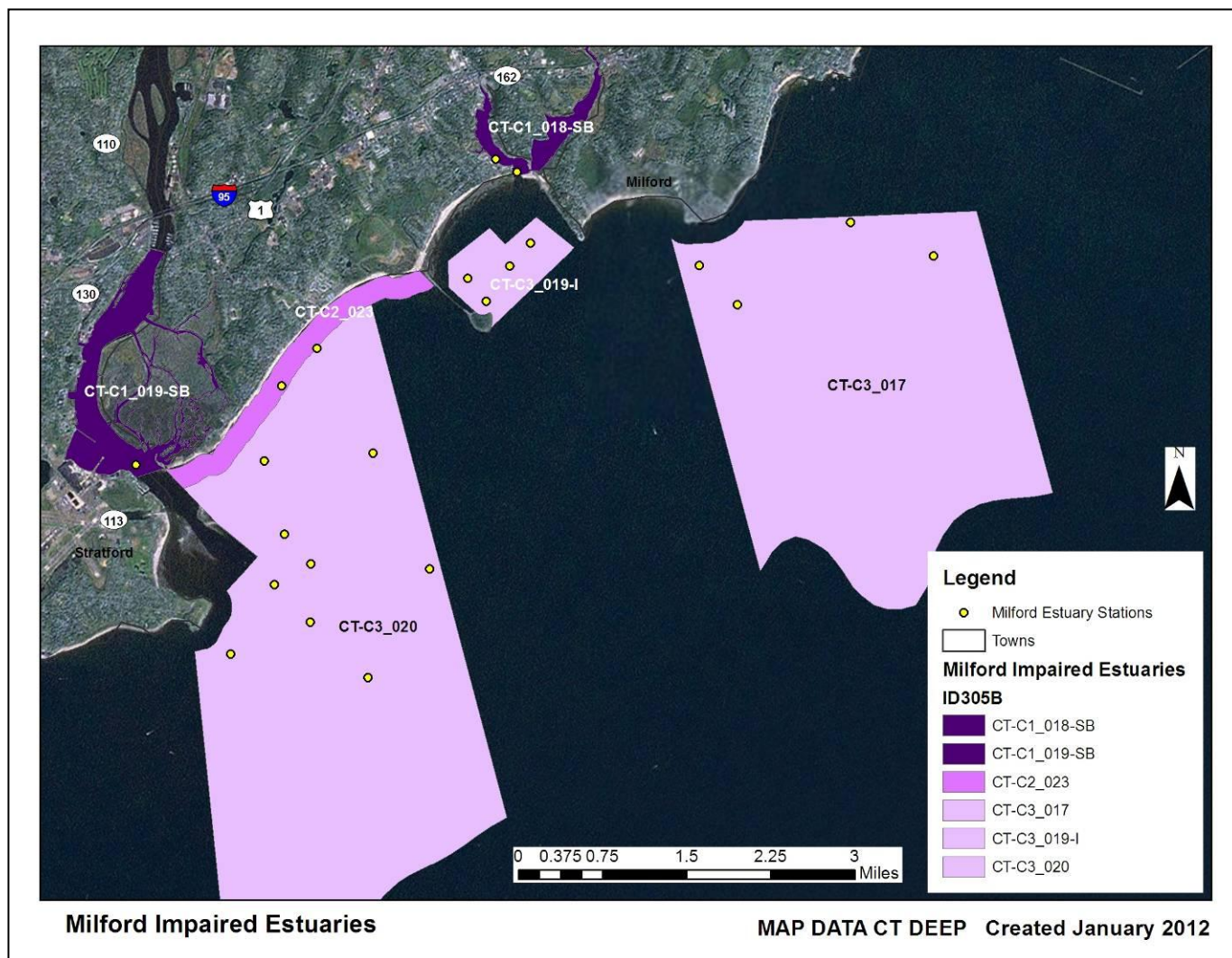
Table 1: Impaired segments in the Milford Estuary from the Connecticut 2010 Integrated Water Quality Report

Waterbody ID	Waterbody Name	Location	Square Miles	Marine Aquatic Life	Recreation	Direct Shellfish	Commercial Shellfish	Fish Consumption
CT-C1_018-SB	LIS CB Inner - Milford Harbor & Gulf Pond, Milford	Central portion of LIS, Inner Estuary, from mouth at Burns Point, The Gulf, US Milford Harbor to New Haven Avenue crossing (saltwater limit), and US Indian River (through Gulf Pond) to saltwater limit US of I95 crossing, Milford.	0.27	U	U	////	NOT	FULL
CT-C1_019-SB	LIS CB Inner - Housatonic River (mouth), Milford	Central portion of LIS, Inner Estuary, from mouth between Sniffens Point and Milford Point, US to Route 1 crossing (includes Nells Island area, lower Beaver Brook to saltwater limit, Goose Island, Crimbo Point), Milford/Stratford.	0.81	NOT	U	////	NOT	FULL

Table 1: Impaired segments in the Milford Estuary from the Connecticut 2010 Integrated Water Quality Report (continued)

Waterbody ID	Waterbody Name	Location	Square Miles	Marine Aquatic Life	Recreation	Direct Shellfish	Commercial Shellfish	Fish Consumption
CT-C2_023	LIS CB Shore - Walnut Beach, Milford	Central portion of LIS from SA/SB WQ line at Milford Point to SA/SB WQ line at Silver Sands State Park Beach area (includes Walnut Beach, all SA, Housatonic River mouth to The Gulf), out approximately 1000 ft offshore, Milford.	0.58	U	FULL	NOT	////	FULL
CT-C3_017	LIS CB Midshore - Milford	Central portion of LIS, SA water from SA/SB water boundary along outer New Haven Harbor, out to 50 ft contour, Milford.	8.10	NOT	U	NOT	////	FULL
CT-C3_019-I	LIS CB Midshore - Outer Silver Sand Beach, Milford	Central portion of LIS from SA/SB water quality line along beach, out to Island (The Gulf SA water inside of Island at Silver Sands State Park Beach), Milford.	0.57	U	U	NOT	////	FULL
CT-C3_020	LIS CB Midshore - Milford Point, Milford	Central portion of LIS from approximately 1000 ft offshore (SA water surrounding SB water, outer mouth of Housatonic River), out to 50 ft contour, Milford.	10.66	NOT	U	NOT	////	FULL
Shaded cells indicate impaired segment addressed in this TMDL FULL = Designated Use Fully Supported NOT = Designated Use Not Supported U = Unassessed /// = Not Applicable to Segment								

Figure 1: GIS map featuring general information for impaired segments in the Milford Estuary



Shellfish Bed Classifications, Closures, and Lease Locations

The Connecticut Department of Agriculture/Bureau of Aquaculture (CT DA/BA) is responsible for regulating shellfish harvesting (<http://www.ct.gov/doag/cwp/view.asp?a=1369&Q=259170>). A shellfish growing area is defined by CT DA/BA as any area that supports or could support the growth and/or propagation of molluscan shellstock. Shellfish are defined by CT DA/BA as oysters, clams, mussels, and scallops, either shucked or in the shell, fresh or frozen, whole or in part. All shellfish growing areas are classified by CT DA/BA in accordance with the Interstate Shellfish Sanitation Conference (ISSC) National Shellfish Sanitation Program Model Ordinance (NSSP-MO) and CT General Statutes Chapter 491, §26-192e. These classifications, summarized below, are established to minimize health risks and may restrict the take and use of shellfish from some areas. They are based on fecal coliform bacteria standards as provided in the NSSP-MO (Interstate Shellfish Sanitation Conference, 2007). Any shellfish area, regardless of classification, may be temporarily closed to all activities when a potential public health emergency exists as a result of a storm event, flooding, sewage, chemical, or petroleum discharges, or a hazardous algal bloom.

Shellfish harvesting has been divided into two designated uses as specified in the Connecticut WQS: shellfish harvesting suitable for direct human consumption (Class SA waters), and shellfish harvesting

suitable for commercial operations requiring depuration or relay (Class SB waters). The impaired segments in the Milford Estuary include both Class SA and SB waters.

Shellfish Bed Classifications and Closures in the Milford Estuary

Shellfish classification areas in the Milford Estuary are shown in Figure 2. The following classifications for shellfish growing areas are defined by CT DA/BA:

Approved Area: A growing area that is safe for the direct marketing or consumption of shellfish. An area may be classified as “Approved” when a sanitary survey finds that there is no contamination from human or animal fecal matter at levels that present an actual or potential public health hazard, and is not contaminated by pathogenic organisms, poisonous or deleterious substances, or marine biotoxins, and has water quality that meets the bacteriological standards for an Approved growing area.

Conditionally Approved Area: A growing area that, when open, shellfish may be harvested recreationally for consumption, or commercially for market. An area may be classified as “Conditionally Approved” when a sanitary survey finds that these areas can remain open for a reasonable period of time, and that factors impacting the area are known and predictable and do not preclude a reasonable management approach. Bacteriological water quality must correlate with the factors impacting the growing area. Each Conditionally Approved growing area must have a written management plan that is adhered to by all responsible parties.

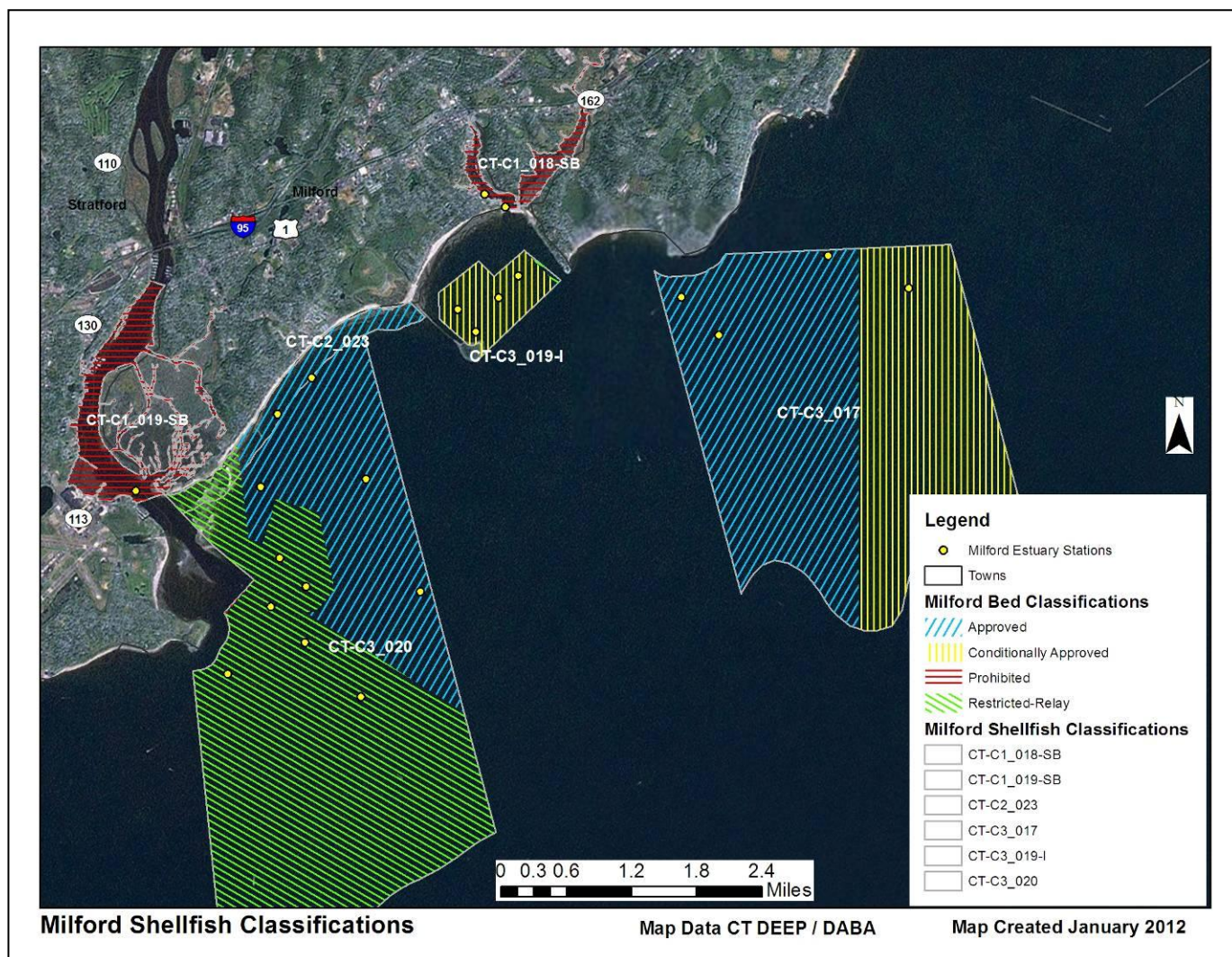
Restricted-Relay/Depuration: A growing area in which the sanitary survey finds there are levels of fecal pollution, human pathogens, or poisonous or deleterious substances that can be reduced by relaying the shellstock to Approved or Conditionally Approved waters for natural cleansing or depuration. Shellfish from these areas may not be directly harvested for market or consumption.

Conditionally Restricted: A growing area that the sanitary survey finds meets “Restricted” classification when the area is in the open status, and meets the “Prohibited” classification when the area is in the closed status. The management plan must designate whether harvested shellfish are relayed or depurated.

Prohibited: A growing area where there has not been a sanitary survey conducted within the last 12 years must be classified as Prohibited. Any area with a sewage treatment plant outfall or other point source that could impact public health is classified as Prohibited. This classification prohibits the harvest of shellfish except for seed oystering or depletion of the area.

As discussed above and shown in Table 1, Segments 1 – 6 did not meet their designated use for shellfish harvesting for direct and commercial consumption due to bacteria (Table 1). Segments 1 (CT-C1_018-SB) and 2 (CT-C1_019-SB) are Prohibited from commercial shellfish harvesting. Segment 3 (CT-C2_023) is Approved for shellfishing along the shoreline, including Cedar Beach and Silver Sands State Park, and permitted by Restricted-Relay/Depuration near the mouth of the Housatonic River. Segment 4 (CT-C3_017) is split between Conditionally Approved and Approved waters. The majority of Segment 5 (CT-C3_019-I) is Conditionally Approved with a small portion permitted by Restricted-Relay/Depuration near Welches Point. Segment 6 (CT-C3_020) is Approved along the outer shoreline of Cedar Beach and Silver Sands State Park, and permitted by Restricted-Relay/Depuration from the outer mouth of the Housatonic River out past Stratford Point (Figure 2).

Figure 2: GIS map featuring Shellfish Bed Classifications and Closures for the impaired segments in the Milford Estuary



Shellfish Bed Lease Locations

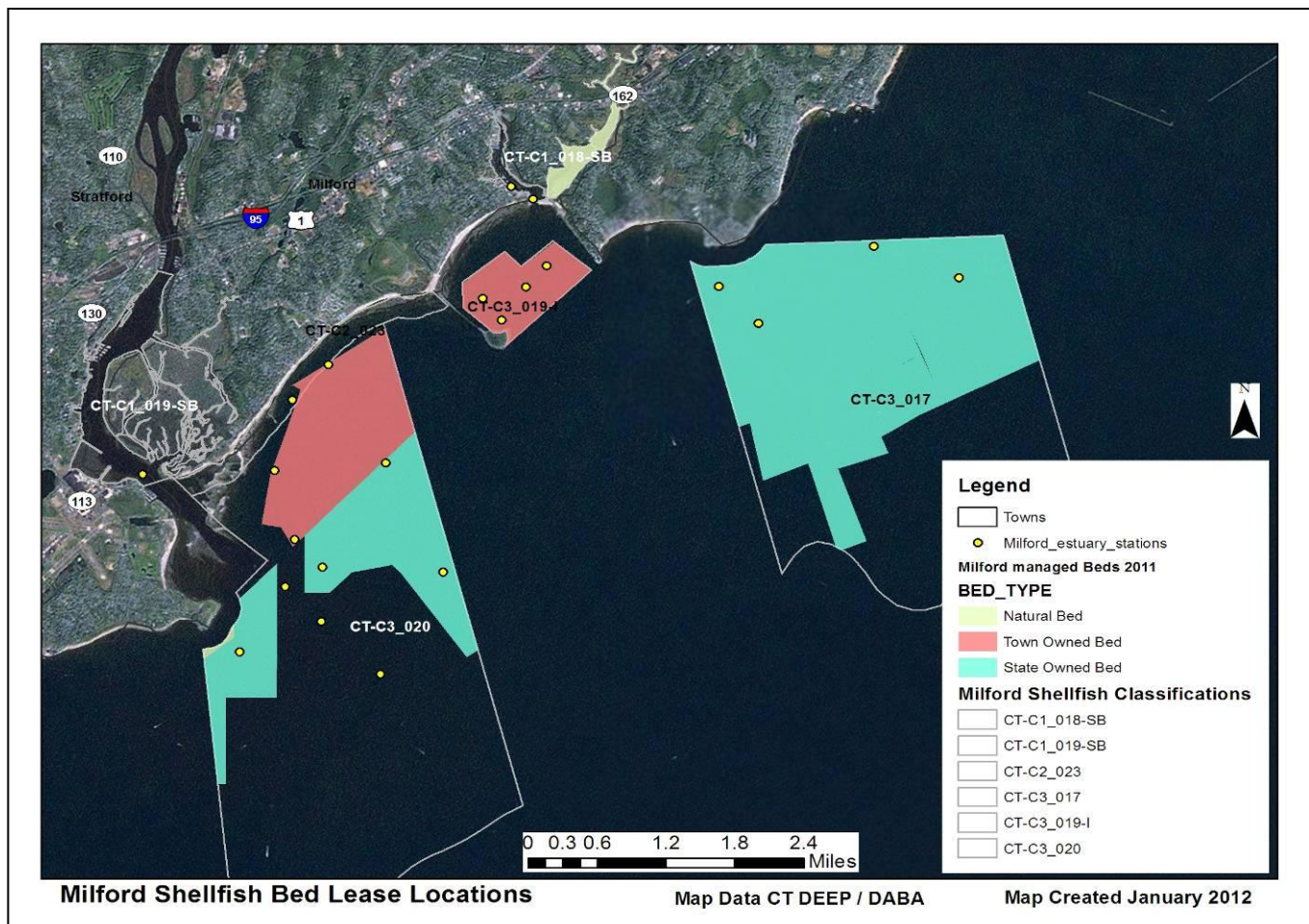
Shellfish beds in the Milford Estuary are also classified by their management (Figure 3). CT DA/BA defines these areas as follows:

State and Town Beds: In 1881, a line, referred to as the Commissioner's Line, was established to divide the waters of the State into northern and southern sections. All beds south of this line are State beds and most beds north of this line are town beds. Town beds are leased, owned or managed through the local shellfish commission. However, CT DA/BA still controls all the licensing and regulations for both state and town beds. For example, DA/BA issues licenses and determines when an area will be closed to shellfishing due to a change in water quality. Towns may require additional permits to work in waters under local jurisdiction. Beds north of the line in Westport, Milford, West Haven, and New Haven are exceptions to this as they are fully under State control.

State and Town Natural Beds: Natural beds get their name from the fact that shellfish, especially oyster, naturally inhabited the area. These areas tend to be closer to shore, usually at the mouth of a river. Natural beds have specific regulations concerning their use, including licensing and harvesting methods. They are predominately seed beds that cannot be mechanically harvested. Use of natural beds requires a Relay/Transplant License I or II and/or Seed Oyster Harvesting License from CT DA/BA. Any person assisting in the harvesting of seed oysters must have a Helper's License. These beds cannot be leased or subdivided; they are to remain open to any properly licensed harvester. State natural beds are natural beds south of the Commissioner's Line. Descriptions of these beds can be found in §3295 of the Connecticut General Statutes (CGS), revision of 1918. Not all beds listed in §3295 were mapped, and many natural beds in State waters off Greenwich are managed through leases. Town natural beds were defined by law under §2326 of the CGS of 1888. Each town had the opportunity to map areas to be considered natural beds. The documents, written descriptions, and maps were submitted to the Superior Court with jurisdiction for that town. Several towns did not avail themselves to this opportunity, and some, such as Westport, have changed the delineation of their natural beds in recent court decisions. There are also areas that may have been declared natural beds, but are now leased.

Shellfish beds in Segment 1 (CT-C1_018-SB) and a portion in Segment 6 (CT-C3_020) are natural beds. Most beds in Segments 5 (CT-C3_019-I) and 6 (CT-C3_020) and portions of Segment 3 (CT-C2_023) are town-managed beds. Most beds in Segment 4 (CT-C3_017) and portions of Segment 6 (CT-C3_020) are State-managed beds. No bed classification is shown for Segment 2 (CT-C1_019-SB) (Figure 3).

Figure 3: GIS map featuring Shellfish Bed Lease Locations for the impaired segments in the Milford Estuary



WHY IS A TMDL NEEDED?

For saltwater segments, the indicator bacteria, fecal coliform, is used in the CT Water Quality Standards (WQS) to assess shellfish uses for Class SA and SB waters (CTDEEP, 2011). Enterococcus is the indicator bacteria used to assess recreational uses for Class SA and SB waters. All data are from CT DEEP, USGS, Bureau of Aquaculture, or volunteer monitoring efforts at stations located on the impaired segments.

Segments 1 (CT-C1_018-SB) and 2 (CT-C1_019-SB) are Class SB saltwater waterbodies. Applicable designated uses include commercial shellfish harvesting, recreation, habitat for marine fish and other aquatic life and wildlife, industrial water supply, and navigation. Water quality analyses were conducted using data from two sampling locations on Segment 1 and one sampling location on Segment 2 (Table 2). The water quality criteria for fecal coliform, along with bacteria sampling results from 2000 – 2011, are presented in Tables 14 and 15. These segments of the estuary are impaired due to elevated bacteria concentrations, affecting the designated use of commercial shellfishing. To aid in identifying possible bacteria sources, the geometric mean was also calculated for wet-weather and dry-weather sampling days for all stations in Segments 1 and 2, where possible (Tables 14 and 15).

Segment 1 (CT-C1_018-SB): As shown in Table 14, 90% less than values exceeded the WQS for fecal coliform at least once at both stations in Segment 1 during the sampling period. Geometric mean values also exceeded the WQS for fecal coliform twice at Station 084-84.0 in 2001 and 2010 during the sampling period. Geometric means for data collected during the sampling period were also calculated for each station using wet and dry-weather conditions. Although there were geometric exceedances in individual years, geometric means for wet and dry-weather did not exceed the WQS for fecal coliform at any station.

Segment 2 (CT-C1_019-SB): As shown in Table 15, geometric mean values exceeded the WQS for fecal coliform once at Station 084-02.1 in 2008 during the sampling period. 90% less than values did not exceed the WQS for fecal coliform for any sampling year in Segment 2 during the sampling period. Geometric means for data collected during the sampling period were also calculated for each station using wet and dry-weather conditions, resulting in exceedance of WQS for fecal coliform during wet-weather at Station 084-02.1.

Segments 3 - 6 are Class SA saltwater waterbodies. Their applicable designated uses include shellfish harvesting for direct human consumption, recreation, habitat for marine fish and other aquatic life and wildlife, industrial water supply, and navigation. Water quality analyses were conducted using data from one sampling location on Segment 3 (CT-C2_023), four sampling locations on Segments 4 (CT-C3_017) and 5 (CT-C3_019-I), and ten sampling locations on Segment 6 (CT-C3_020). The water quality criteria for fecal coliform, along with bacteria sampling results from 2000 – 2011, are presented in Tables 16 – 19. These segments of the estuary are impaired due to elevated bacteria concentrations, affecting the designated use of direct shellfishing.

Segment 3 (CT-C2_023): As shown in Table 16, 90% less than values exceeded the WQS for fecal coliform once at Station 084-04.0 in 2004 during the sampling period. Geometric mean values did not exceed the WQS for fecal coliform for any sampling year in Segment 3 during the sampling period. Geometric means for data collected during the sampling period were also calculated for each station using wet and dry-weather conditions, resulting in no exceedance of the WQS for fecal coliform.

Segment 4 (CT-C3_017): As shown in Table 17, 90% less than values exceeded the WQS for fecal coliform at least once at Stations 084-13.1 and 084-16.0 during the sampling period. Geometric mean

values did not exceed the WQS for fecal coliform for any station in Segment 4 during the sampling period. Geometric means for data collected during the sampling period were also calculated for each station using wet and dry-weather conditions, resulting in no exceedance of the WQS for fecal coliform.

Segment 5 (CT-C3_019-I): As shown in Table 18, 90% less than values exceeded the WQS for fecal coliform multiple times at all stations in Segment 5 during the sampling period. Geometric mean values exceeded the WQS for fecal coliform once at Station 084-08.1 in 2010 and multiple times at Station 084-07.4 in 2003, 2004, and 2007 during the sampling period. Geometric means for data collected during the sampling period were also calculated for each station using wet and dry-weather conditions. Although there were geometric exceedances in individual years, geometric means for wet and dry-weather did not exceed the WQS for fecal coliform at any station.

Segment 6 (CT-C3_020): As shown in Table 19, 90% less than values exceeded the WQS for fecal coliform multiple times at all stations, but only once at Station 084-04.1 in 2005 during the sampling period. Geometric mean values exceeded the WQS for fecal coliform multiple times at multiple stations, but only once at Station 084-01.6 in 2009, 084-06.2 in 2005, and 084-06.4 in 2005 during the sampling period. Stations 084-03.0 and 084-04.1 geometric mean values did not exceed the WQS for any sampling year. Geometric means for data collected during the sampling period were also calculated for each station using wet and dry-weather conditions, resulting in exceedances of the WQS for fecal coliform during wet-weather at Station 084-01.0, 084-01.2, 084-01.3, and 084-02.0.

Due to the elevated bacteria measurements presented in Tables 14 – 19, these six impaired segments did not meet CT's bacteria WQS, were identified as impaired, and were placed on the CT List of Waterbodies Not Meeting Water Quality Standards, also known as the CT 303(d) Impaired Waters List. The Clean Water Act requires that all 303(d) listed waters undergo a TMDL assessment that describes the impairments and identifies the measures needed to restore water quality. The goal is for all waterbodies to comply with State WQS.

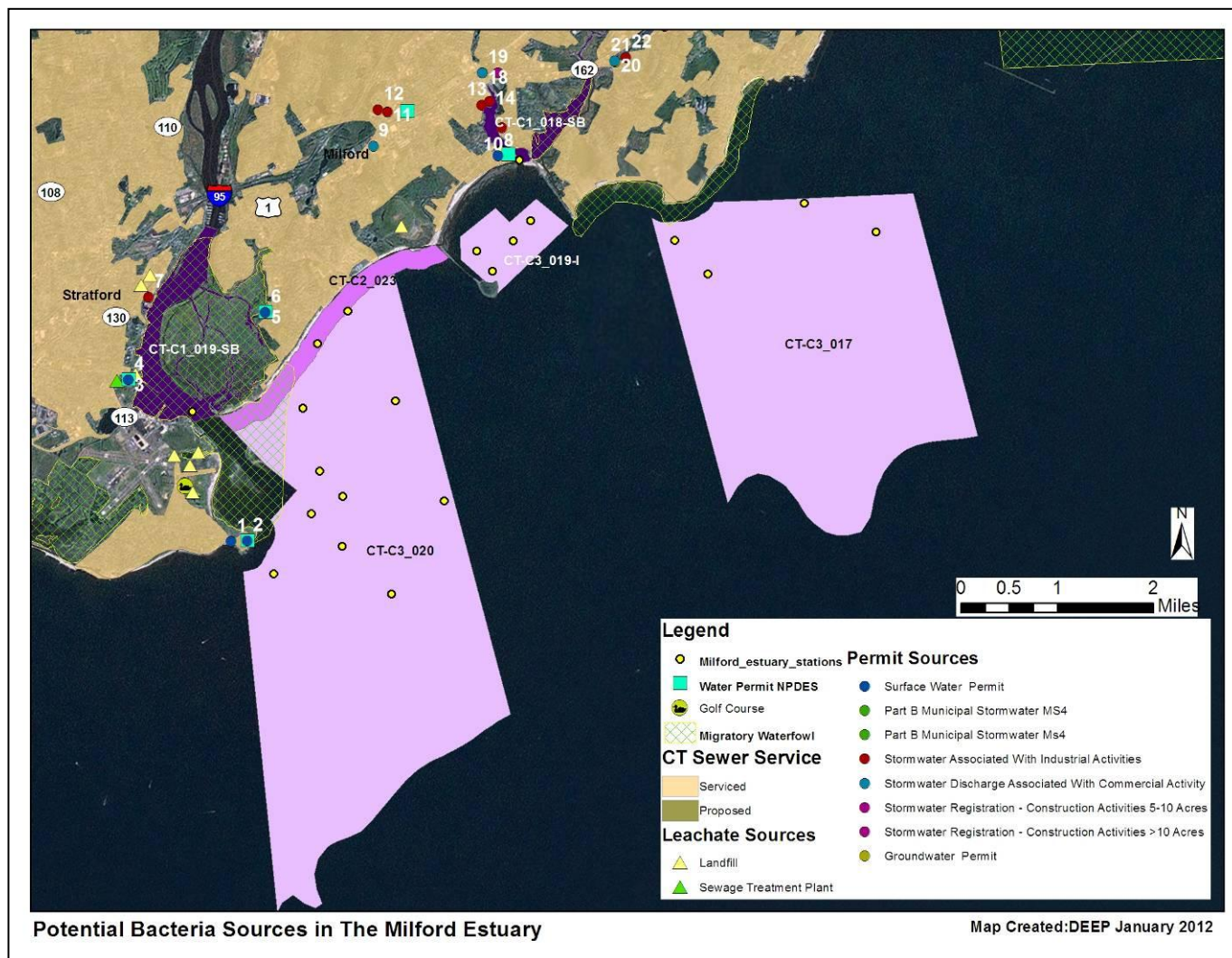
Table 2: Sampling station location description for the impaired segments in the Milford Estuary

Waterbody ID	Station	Station Description	Municipality	Latitude	Longitude
Segment 1: CT-C1_018-SB	084-08.3	Harbor entrance in Gulf Pond flow	Milford	41.2107	-73.0489
	084-84.0	Milford Harbor at DA/BA dock	Milford	41.2123	-73.0526
Segment 2: CT-C1_019-SB	084-02.1	Housatonic River at G C "9" & N "10"	Milford	41.1726	-73.1140
Segment 3: CT-C2_023	084-04.0	S. Laurel Beach	Milford	41.1829	-73.0891
Segment 4: CT-C3_017	084-13.0	S. Pond Pt. N"12"	Milford	41.1987	-73.0178
	084-13.1	SE N"12"	Milford	41.1936	-73.0112
	084-16.0	S. Merwin Pt. Offshore	Milford	41.2043	-72.9919
Segment 5: CT-C3_019-I	084-07.2	NE Charles Island	Milford	41.1939	-73.0541
	084-07.3	NE side sandbar	Milford	41.1969	-73.0573
	084-07.4	SE R"4"	Milford	41.2015	-73.0466
	084-08.1	S. channel	Milford	41.1985	-73.0501
Segment 6: CT-C3_020	084-01.0	SW Housatonic River mouth/ S. Lighthouse	Milford	41.1482	-73.0977
	084-01.2	S. Housatonic River	Milford	41.1524	-73.0840
	084-01.3	SE Housatonic River mouth	Milford	41.1599	-73.0840
	084-01.6	S. Housatonic River offshore	Milford	41.1452	-73.0741
	084-02.0	Housatonic River mouth	Milford	41.1572	-73.0902
	084-03.0	S. Laurel Beach Condos. Demarc. Sign	Milford	41.1732	-73.0920
	084-03.1	NE Housatonic River breakwater	Milford	41.1637	-73.0886
Segment 6: CT-C3_020	084-04.1	S. Wildemere Beach- St Gabriels	Milford	41.1878	-73.0831
	084-06.2	offshore between Housatonic River breakwater and Charles Island	Milford	41.1743	-73.0734
	084-06.4	offshore S. station 6.3	Milford	41.1593	-73.0637

POTENTIAL BACTERIA SOURCES

Potential sources of indicator bacteria in a watershed include point and non-point sources, such as stormwater runoff, agriculture, sanitary sewer overflows (collection system failures), illicit discharges, and inappropriate discharges to the waterbody. Potential sources that have been tentatively identified in the Milford Estuary are presented in Table 3 and Figure 4. However, the list of potential sources is general in nature and should not be considered comprehensive. There may be other sources not listed here that contribute to the observed water quality impairment in the study segments. Further monitoring and investigation will confirm listed sources and discover additional ones. Some segments in this watershed are currently listed as unassessed by CT DEEP procedures. This does not mean that there are no data or impairments in existence in the segment. There are data from permitted sources for some segments, and CT DEEP recommends that any elevated concentrations found from those permitted sources be addressed through voluntary reduction measures. More detailed evaluation of potential sources is expected to become available as activities are conducted to implement these TMDLs.

Figure 4: Potential bacteria sources to the impaired segments in the Milford Estuary



The potential sources map for the impaired basin was developed after thorough analysis of available data sets. If information is not displayed in the map, then no sources were discovered during the analysis. The following is the list of potential sources that were evaluated: problems with migratory waterfowl, golf course locations, reservoirs, proposed and existing sewer service, cattle farms, poultry farms, permitted sources of bacteria loading (surface water discharge, MS4 permit, industrial stormwater, commercial stormwater, groundwater permits, and construction related stormwater), and leachate and discharge sources (agricultural waste, CSOs, failing septic systems, landfills, large septic tank leach fields, septage lagoons, sewage treatment plants, and water treatment or filter backwash).

Table 3: Potential bacteria sources to the impaired segments in the Milford Estuary

Segment #	Impaired Segment	Permit Source	Illicit Discharge	CSO/SSO Issue	Failing Septic System	Marinas	Stormwater Runoff	Nuisance Wildlife/Pets	Other
1	LIS CB Inner – Milford Harbor & Gulf Pond CT-C1_018-SB	x	x		x		x	x	x
2	LIS CB Inner – Housatonic River (mouth) CT-C1_019-SB	x	x		x		x	x	x
3	LIS CB Shore – Walnut Beach CT-C2_023	x	x		x		x	x	x
4	LIS CB Midshore – Milford CT-C3_017		x		x		x	x	
5	LIS CB Midshore – Outer Silver Sand Beach CT-C3_019-I	x	x		x		x	x	x
6	LIS CB Midshore – Milford Point CT-C3_020	x	x		x		x	x	x

Point Sources

Permitted sources within the watershed that could potentially contribute to the bacteria loading are identified in Table 4. This table includes permit types that may or may not be present in the impaired watershed. A list of active permits in municipalities that drain to the Milford estuary is included in Table 5. Additional investigation and monitoring could reveal the presence of other discharges in the estuary.

Table 4: General categories list of permitted discharges

Permit Code	Permit Description Type	Number in Estuary
CT	Surface Water Discharges	5
GPL	Discharge of Swimming Pool Wastewater	0
GSC	Stormwater Discharge Associated with Commercial Activity	7
GSI	Stormwater Associated with Industrial Activity	20
GSM	Part B Municipal Stormwater MS4	1
GSN	Stormwater Registration – Construction	5
LF	Groundwater Permit (Landfill)	0
UI	Underground Injection	1

Permitted Sources

As shown in Table 5, there are multiple permitted discharges in Milford, Stratford, Orange, and West Haven that could be contributing bacteria to the impaired segments. These facilities include the Milford Beaver Brook Water Pollution Control Facility (WPCF), Milford Boat Works, Milford Maintenance and Repair Facility, I-95 Southbound Service Plaza, Stratford WPCF, and multiple marinas throughout the watershed. According to the 2005 Milford Estuary Report, there are approximately 12 marinas in the Milford Estuary. These include Milford Harbor Marina, Milford Boat Works, Brewer's Stratford Marina, Valley Yacht Club, Flagship Marina, Port Milford Marina, Rivercliff Yacht Club, Caswell Cove Marina, Spencer's Marina, Oyster Landing Marina, Milford Yacht Club, and Milford Landing. As shown in Table 6, there are water quality data available for some of these discharges. Although this data cannot be compared to the WQS as there is no single sample shellfish standard for fecal coliform, several samples were high, exceeding 2,000 colonies/100 mL or had results "too numerous to count" (TNTC), including Waste Conversion Tech (GSI000292), Mesco, Inc (GSI000408), Milford Harbor Marina (GSI001048), Milford Boat Works (GSI001097), and Devon Power (GSI001376) (Table 6).

Since the MS4 permits are not targeted to a specific location, but the geographic area of the regulated municipality, there is no one accurate location on the map to display the location of these permits. One dot will be displayed at the geographic center of the municipality as a reference point. Sometimes this location falls outside of the targeted watershed and therefore the MS4 permit will not be displayed in the Potential Sources Map. Using the municipal border as a guideline will show which areas of an affected watershed are covered by an MS4 permit.

Table 5: Permitted facilities in or near Milford, CT that may be affecting the Milford Estuary

Town	Client	Permit ID	Permit Type	Site Name	Address	Map #
Milford	City Of Milford	CT0100749	Surface Water Permit	Milford Beaver Brook WPCF	75 Deerwood Avenue	6
Milford	U.S. Dept Commerce NOAA-National Marine Fish	CT0090182	Surface Water Permit	NE Fisheries Center	212 Rogers Avenue	8
Milford	The Stop & Shop Supermarket Company Llc	GSC000182	Stormwater Discharge Associated With Commercial Activity	Stop & Shop Supermarket	855 Bridgeport Avenue	9
Milford	The Stop & Shop Supermarket Company Llc	GSC000052	Stormwater Discharge Associated With Commercial Activity	Stop & Shop Store #663	1360 East Town Road	19
Milford	American General Life Insurance Co.	GSC000309	Stormwater Discharge Associated With Commercial Activity	Former Connecticut Aerosols, Inc.	64-145 Furniture Row	21
Milford	Lowe's Home Centers Inc	GSC000364	Stormwater Discharge Associated With Commercial Activity	Milford Lowe's Home Improvement Center	311 Old Gate Lane	28
Milford	Connecticut Post Mall Limited Partnership	GSC000109	Stormwater Discharge Associated With Commercial Activity	Connecticut Post Mall	1201 Boston Post Road	29
Milford	Pilot Travel Center Llc	GSC000350	Stormwater Discharge Associated With Commercial Activity	Pilot Travel Center #255	433 Old Gate Lane	31
Milford	Pilot Travel Center Llc	GSC000167	Stormwater Discharge Associated With Commercial Activity	Pilot Travel Center #255	433 Old Gate Lane	32
Milford	City Of Milford	GSI002296	Stormwater Associated With Industrial Activities	Milford Beaver Brook WPCF	75 Deerwood Avenue	5
Milford	Joanne Allen	GSI001051	Stormwater Associated With Industrial Activities	Spencer's Marina Inc.	44 Rose Street	10
Milford	Beard Concrete Co	GSI001429	Stormwater Associated With Industrial Activities	Beard Sand & Gravel Co., Incorporated	127 Boston Post Road	11

Table 5: Permitted facilities in or near Milford, CT that may be affecting the Milford Estuary (continued)

Town	Client	Permit ID	Permit Type	Site Name	Address	Map #
Milford	Colonial Coatings, Inc.	GSI002042	Stormwater Associated With Industrial Activities	Colonial Coatings Inc	66 Erna Avenue	12
Milford	Nancy Bodick	GSI001048	Stormwater Associated With Industrial Activities	Milford Harbor Marina, Inc.	2 High Street	13
Milford	Milford Boat Works, Incorporated	GSI001097	Stormwater Associated With Industrial Activities	Milford Boat Works, Incorporated	1 High Street	14
Milford	NRG Devon Operations Inc.	GSI001376	Stormwater Associated With Industrial Activities	Devon Power, Llc	Naugatuck Avenue	18
Milford	Mesco, Incorporated	GSI000408	Stormwater Associated With Industrial Activities	Mesco, Inc.	634 New Haven Avenue	22
Milford	Caap Co., Inc.	GSI001322	Stormwater Associated With Industrial Activities	Caap Company, Inc.	152 Pepes Farm Road	23
Milford	Waste Conversion Technologies, Inc.	GSI000292	Stormwater Associated With Industrial Activities	Waste Conversion Technologies, Inc.	221 Old Gate Lane	24
Milford	Schick Manufacturing, Inc.	GSI000857	Stormwater Associated With Industrial Activities	Schick Manufacturing, Inc.	10 Leighton Road	25
Milford	Rolling Frito-Lay Sales, Lp	GSI001793	Stormwater Associated With Industrial Activities	Rolling Frito-Lay Sales, Lp	206 Pepes Farm Road	26
Milford	State Of Connecticut Department Of Transportation	GSI000041	Stormwater Associated With Industrial Activities	Milford Maintenance & Repair Facility	44 Banner Drive	33
Milford	Fedex Freight East, Inc.	GSI001858	Stormwater Associated With Industrial Activities	Fedex Freight East, Inc.	250 Research Drive	34
Milford	Lcd Lighting, Inc	GSI002241	Stormwater Associated With Industrial Activities	Lcd Lighting, Inc.	70 Cascade Boulevard	35
Milford	City Of Milford	GSM00003 7 / 200901934	Part B Municipal Stormwater Ms4	Milford, City Of	MS4 Permit	16

Table 5: Permitted facilities in or near Milford, CT that may be affecting the Milford Estuary (continued)

Town	Client	Permit ID	Permit Type	Site Name	Address	Map #
Milford	Briad Construction Services Llc	GSN001752	Stormwater Registration - Construction Activities >10 Acres	Hilton Garden Inn	291 Old Gate Lane	27
Milford	Bvs Jai Alai, Llc	GSN001871	Stormwater Registration - Construction Activities 5-10 Acres	Proposed Retail	303-307 Old Gate Lane	17
Milford	Gabrielli Realty Of Milford CT, Llc	GSN002149	Stormwater Registration - Construction Activities 5-10 Acres	Bridgehaven Truck Sales	401 Old Gate Lane	30
Milford	Project Services, Llc	GSN002159	Stormwater Registration - Construction Activities 5-10 Acres	I-95 Southbound Service Plaza	I-95 Southbound	37
Milford	Project Services, Llc	GSN002160	Stormwater Registration - Construction Activities 5-10 Acres	I-95 Southbound Service Plaza	I-95 Southbound	38
Milford	American General Life Insurance Co.	UI0000456	Groundwater Permit	Former Connecticut Aerosols Facility	65 Furniture Row	20
Orange	Roebic Laboratories, Inc.	GSI000759	Stormwater Associated With Industrial Activities	Roebic Laboratories, Inc.	25 Connair Road	36
Orange	United Parcel Service, Inc.	GSI000238	Stormwater Associated With Industrial Activities	United Parcel Service, Inc.	58 Robinson Boulevard	39
Orange	Light Sources, Inc.	GSI001168	Stormwater Associated With Industrial Activities	Light Sources, Inc.	37 Robinson Boulevard	40
Stratford	Sporting Goods Properties, Inc.	CT0030171	Surface Water Permit	Sporting Goods Properties, Inc.		1
Stratford	Town Of Stratford	CT0101036	Surface Water Permit	Stratford WPCF	105 Beacon Point Road	4
Stratford	Sporting Goods Properties, Inc.	CT0030171	Surface Water Permit	Sporting Goods Properties, Inc.	1207 Prospect Drive	15
Stratford	Town Of Stratford	GSI002096	Stormwater Associated With Industrial Activities	Stratford WPCF	105 Beacon Point Road	3

Table 5: Permitted facilities in or near Milford, CT that may be affecting the Milford Estuary (continued)

Town	Client	Permit ID	Permit Type	Site Name	Address	Map #
Stratford	Marine Holdings Of Stratford, Inc.	GSI001191	Stormwater Associated With Industrial Activities	Brewer's Stratford Marina	605 Broad Street	7
West Haven	City of West Haven	GSM000002	Part B Municipal Stormwater Ms4	West Haven, City of	MS4 Permit	NA

Table 6: Industrial permits affecting the Milford Estuary and available fecal coliform data (colonies/100mL). The results cannot be compared to the water quality standard as there is no single sample shellfish standard for fecal coliform.

Town	Location	Permit Number	Receiving Water	Sample Location	Sample Date	Result
Milford	Waste Conversion Technologies, Inc.	GSI000292	Milford Estuary	Unknown	09/16/02	TNTC
Milford	Mesco, Inc.	GSI000408	Milford Estuary	1	07/26/01	0
Milford	Mesco, Inc.	GSI000408	Milford Estuary	1	08/29/02	2,200
Milford	Mesco, Inc.	GSI000408	Milford Estuary	2	07/26/01	6
Milford	Mesco, Inc.	GSI000408	Milford Estuary	2	08/29/02	11,000
Milford	Mesco, Inc.	GSI000408	Milford Estuary	3	07/26/01	0
Milford	Mesco, Inc.	GSI000408	Milford Estuary	3	08/29/02	8,000
Milford	Schick Manufacturing, Inc.	GSI000857	Milford Estuary	channel	09/20/01	10
Milford	Schick Manufacturing, Inc.	GSI000857	Milford Estuary	channel	09/26/02	100
Milford	Schick Manufacturing, Inc.	GSI000857	Milford Estuary	headwall	09/20/01	300
Milford	Schick Manufacturing, Inc.	GSI000857	Milford Estuary	headwall	09/26/02	3,700
Milford	Milford Harbor Marina, Inc.	GSI001048	Milford Estuary	MHM drain	12/14/01	3,200
Milford	Milford Harbor Marina, Inc.	GSI001048	Milford Estuary	MHM drain	09/26/02	TNTC
Milford	Milford Harbor Marina, Inc.	GSI001048	Milford Estuary	MHM drain	09/13/03	4,000
Milford	Spencer's Marina Inc.	GSI001051	Milford Estuary	2 yard drain	05/22/01	100
Milford	Spencer's Marina Inc.	GSI001051	Milford Estuary	1 yard drain	05/22/01	100
Milford	Milford Boat Works, Incorporated	GSI001097	Milford Estuary	132078-MBW	12/14/01	400
Milford	Milford Boat Works, Incorporated	GSI001097	Milford Estuary	132078-MBW	09/26/02	TNTC
Milford	Milford Boat Works, Incorporated	GSI001097	Milford Estuary	132078-MBW	09/13/03	TNTC
Milford	Caap Company, Inc.	GSI001322	Milford Estuary	2	09/25/01	100
Milford	Caap Company, Inc.	GSI001322	Milford Estuary	1	08/20/02	400
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 006-1	09/20/01	30

Table 6: Industrial permits affecting the Milford Estuary and available fecal coliform data (colonies/100mL). The results cannot be compared to the water quality standard as there is no single sample shellfish standard for fecal coliform. (continued)

Town	Location	Permit Number	Receiving Water	Sample Location	Sample Date	Result
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 006-1	09/26/02	>2000
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN-004-1	09/20/01	80
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 003-1	09/20/01	2,600
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 003-1	09/26/02	>2000
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 023-1	09/20/01	>6000
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 023-1	09/26/02	>2000
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 052-1	09/21/01	5,200
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 052-1	09/26/02	10
Milford	Devon Power, Llc	GSI001376	Milford Estuary	DSN 013-1	09/26/02	1,750
Orange	United Parcel Service, Inc.	GSI000238	Milford Estuary	Outfall #1	09/25/01	>600
Orange	United Parcel Service, Inc.	GSI000238	Milford Estuary	Outfall #1	09/15/02	>600
Orange	Roebic Laboratories, Inc.	GSI000759	Milford Estuary	Point of Discharge	11/15/01	TNTC
Orange	Roebic Laboratories, Inc.	GSI000759	Milford Estuary	Point of Discharge	03/26/02	3,500
Orange	Roebic Laboratories, Inc.	GSI000759	Milford Estuary	Point of Discharge	09/23/03	TNTC
Orange	Light Sources, Inc.	GSI001168	Milford Estuary	131233	08/27/01	90
Orange	Light Sources, Inc.	GSI001168	Milford Estuary	134506	10/16/02	TNTC
Stratford	Federal Express-(OXCA) Stratford Facility	GSI000158	Milford Estuary	SD at property exit	09/20/01	>600
Stratford	Blase Mfg	GSI000313	Milford Estuary	Building #2	09/20/01	>600
Stratford	Stratford Army Engine Plant	GSI000878	Milford Estuary	IPM-009	09/14/01	1,200
Stratford	Stratford Army Engine Plant	GSI000878	Milford Estuary	IPM-009	08/20/02	8
Stratford	Stratford Army Engine Plant	GSI000878	Milford Estuary	IPM-009	06/04/03	250
Stratford	Stratford Army Engine Plant	GSI000878	Milford Estuary	IPM-010	09/14/01	1,100
Stratford	Stratford Army Engine Plant	GSI000878	Milford Estuary	IPM-010	08/20/02	2
Stratford	Stratford Army Engine Plant	GSI000878	Milford Estuary	IPM-010	06/04/03	380
Stratford	Stratford Army Engine Plant	GSI000878	Milford Estuary	IPM-011	09/14/01	1,200
Stratford	Stratford Army Engine Plant	GSI000878	Milford Estuary	IPM-011	08/20/02	920
Stratford	Bridgeport Fittings	GSI000968	Milford Estuary	CB E side of building	12/13/01	10
Stratford	Bridgeport Fittings	GSI000968	Milford Estuary	CB E side of building	10/16/02	5,600

Table 6: Industrial permits affecting the Milford Estuary and available fecal coliform data (colonies/100mL). The results cannot be compared to the water quality standard as there is no single sample shellfish standard for fecal coliform. (continued)

Town	Location	Permit Number	Receiving Water	Sample Location	Sample Date	Result
Stratford	Bridgeport Fittings	GSI000968	Milford Estuary	CB E side of building	10/17/06	>2000
Stratford	The Dock	GSI001039	Milford Estuary	CB at dry storage area	09/14/01	>600
Stratford	The Dock	GSI001039	Milford Estuary	CB at dry storage area	09/26/02	100
Stratford	Pace Motor Lines	GSI001131	Milford Estuary	Roof drain	08/29/02	10
Stratford	FedEx	GSI001166	Milford Estuary	Unknown	03/13/02	200
Stratford	Brewer's Stratford Marina	GSI001191	Milford Estuary	South yard	11/20/01	100
Stratford	Brewer Stratford Marina	GSI001191	Milford Estuary	Lift well	11/20/01	300
Stratford	Brewer Stratford Marina	GSI001191	Milford Estuary	Lift well	10/11/02	15
Stratford	Dresser Measurement Div	GSI001450	Milford Estuary	Roof	07/11/01	0
Stratford	Dresser Measurement Div	GSI001450	Milford Estuary	Avery Street	07/11/01	0

Municipal Stormwater Permitted Sources

Per the EPA Phase II Stormwater rule all municipal storm sewer systems (MS4s) operators located within US Census Bureau Urbanized Areas (UAs) must be covered under MS4 permits regulated by the appropriate State agency. There is an EPA waiver process that municipalities can apply for to not participate in the MS4 program. In Connecticut, EPA has granted such waivers to 19 municipalities. All participating municipalities within UAs in Connecticut are currently regulated under MS4 permits by CT DEEP staff in the MS4 program.

The US Census Bureau defines a UA as a densely settled area that has a census population of at least 50,000. A UA generally consists of a geographic core of block groups or blocks that exceeds the 50,000 people threshold and has a population density of at least 1,000 people per square mile. The UA will also include adjacent block groups and blocks with at least 500 people per square mile. A UA consists of all or part of one or more incorporated places and/or census designated places, and may include additional territory outside of any place. (67 FR 11663)

For the 2000 Census a new geographic entity was created to supplement the UA blocks of land. This created a block known as an Urban Cluster (UC) and is slightly different than the UA. The definition of a UC is a densely settled area that has a census population of 2,500 to 49,999. A UC generally consists of a geographic core of block groups or blocks that have a population density of at least 1,000 people per square mile, and adjacent block groups and blocks with at least 500 people per square mile. A UC consists of all or part of one or more incorporated places and/or census designated places; such a place(s) together with adjacent territory; or territory outside of any place. The major difference is the total population cap of 49,999 people for a UC compared to >50,000 people for a UA. (67 FR 11663)

While it is possible that CT DEEP will be expanding the reach of the MS4 program to include UC municipalities in the near future they are not currently under the permit. However, the GIS layers used to create the MS4 maps in this Statewide TMDL did include both UA and UC blocks. This factor creates

some municipalities that appear to be within an MS4 program that are not currently regulated through an MS4 permit. This oversight can explain a municipality that is at least partially shaded grey in the maps and there are no active MS4 reporting materials or information included in the appropriate appendix. While these areas are not technically in the MS4 permit program, they are still considered urban by the cluster definition above and are likely to contribute similar stormwater discharges to affected waterbodies covered in this TMDL.

As previously noted, EPA can grant a waiver to a municipality to preclude their inclusion in the MS4 permit program. One reason a waiver could be granted is a municipality with a total population less than 1000 people, even if the municipality was located in a UA. There are 19 municipalities in Connecticut that have received waivers, this list is: Andover, Bozrah, Canterbury, Coventry, East Hampton, Franklin, Haddam, Killingworth, Litchfield, Lyme, New Hartford, Plainfield, Preston, Salem, Sherman, Sprague, Stafford, Washington, and Woodstock. There will be no MS4 reporting documents from these towns even if they are displayed in an MS4 area in the maps of this document.

The list of US Census UCs is defined by geographic regions and is named for those regions, not necessarily by following municipal borders. In Connecticut the list of UCs includes blocks in the following Census Bureau regions: Colchester, Danielson, Lake Pocotopaug, Plainfield, Stafford, Storrs, Torrington, Willimantic, Winsted, and the border area with Westerly, RI (67 FR 11663). Any MS4 maps showing these municipalities may show grey areas that are not currently regulated by the CT DEEP MS4 permit program.

The impaired segments of the Milford Estuary are located within the Cities of Milford and West Haven, CT. Although the impaired segments are not within the boundary of the Town of Stratford, stormwater runoff to the Housatonic River may be a direct source of pollution to the Milford Estuary as well. These municipalities have designated urban areas, as defined by the U.S. Census Bureau and are required to comply with the General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems (MS4 permit) issued by CT DEEP (Figure 5). This general permit is only applicable to municipalities that are identified in Appendix A of the MS4 permit that contain designated urban areas and discharge stormwater via a separate storm sewer system to surface waters of the State. The permit requires municipalities to develop a Stormwater Management Plan (SMP) to reduce the discharge of pollutants as well as protect water quality. The MS4 permit is discussed further in the “TMDL Implementation Guidance” section of the core TMDL document. Additional information regarding stormwater management and the MS4 permit can be obtained on CTDEEP’s website (http://www.ct.gov/dep/cwp/view.asp?a=2721&q=325702&depNav_GID=1654).

There are potentially twenty-three MS4 outfalls that have been sampled for *E. coli* bacteria in the watershed in Milford, Orange, Stratford, and West Haven, discharging directly to the shoreline of LIS and Milford Harbor or indirectly through the Housatonic River, Quirks Pond, Wepawaug River, Great Creek, Beaver Brook, Farley Brook, Indian River, Oyster River, and Silver Brook (Table 7). Although the results cannot be compared to the water quality standard as there is no single sample shellfish standard for *E. coli*, high counts were detected at seven of the ten outfalls in Milford, six of the six outfalls in Orange, none of the two outfalls in Stratford, and five of the five outfalls in West Haven.

Figure 5: MS4 areas near the Milford Estuary

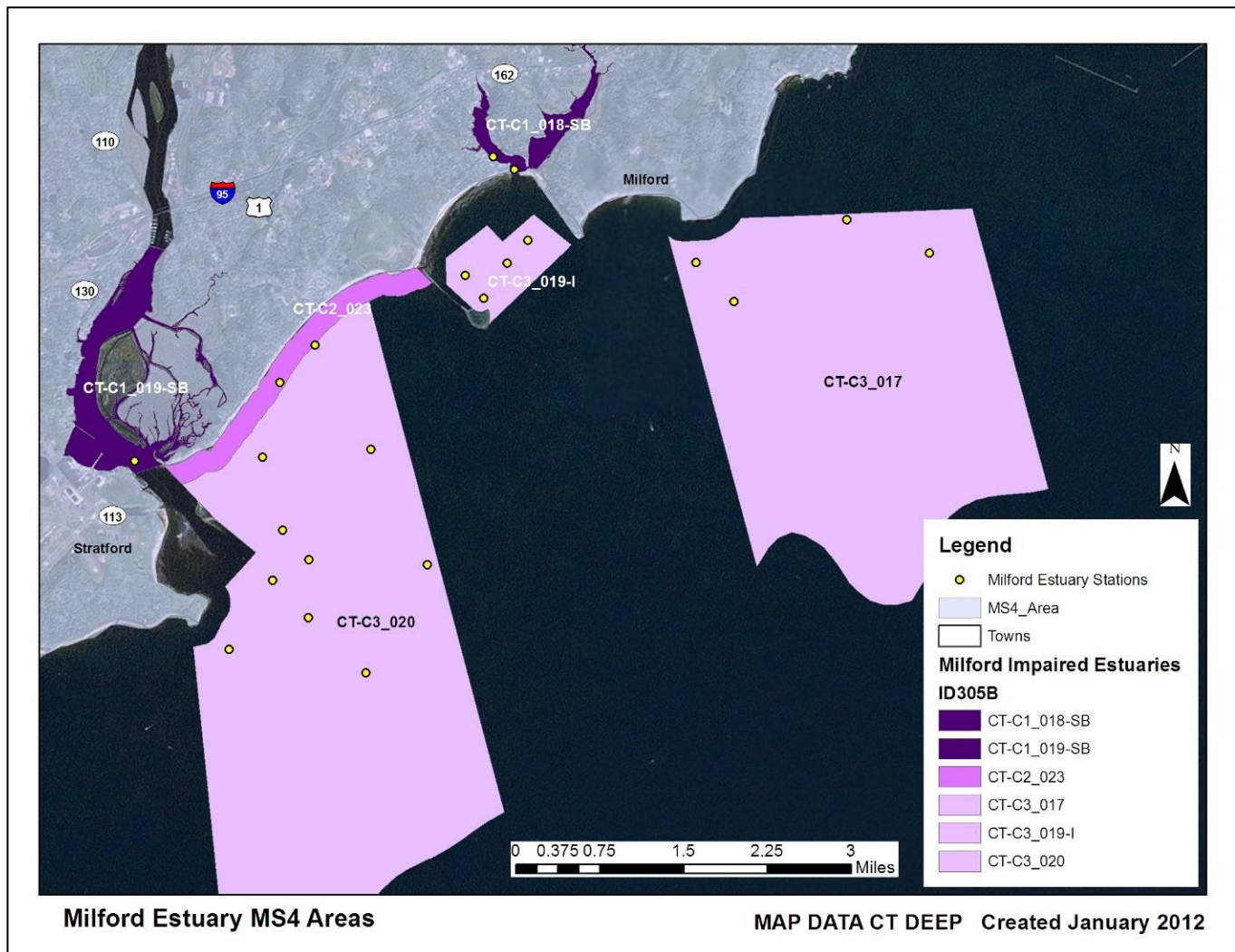


Table 7: List of MS4 sample locations and *E. coli* (colonies/100 mL) results in the Milford Estuary. The results cannot be compared to the water quality standard as there is no single sample shellfish standard for *E. coli*.

Town	Location	MS4 Type	Receiving Waters	Sample Date	Result
Milford	135 Research Drive	Industrial	Quirks Pond	12/07/04	47
Milford	929 Naugatuck Avenue	Residential	Housatonic River	12/07/04	210
Milford	929 Naugatuck Avenue	Residential	Housatonic River	09/11/07	TNTC
Milford	929 Naugatuck Avenue	Residential	Housatonic River	11/13/08	2,900
Milford	929 Naugatuck Avenue	Residential	Housatonic River	11/04/10	>2000
Milford	Factory Lane	Commercial	Wepawaug River	09/11/07	TNTC
Milford	Factory Lane	Commercial	Wepawaug River	11/13/08	1,900
Milford	Factory Lane	Commercial	Wepawaug River	10/15/09	>2500

Milford	Factory Lane	Commercial	Wepawaug River	11/04/10	>2000
Milford	Factory Lane at PED Bridge	Commercial	Milford Harbor	12/07/04	850

Table 7: List of MS4 sample locations and *E. coli* (colonies/100 mL) results in the Milford Estuary. The results cannot be compared to the water quality standard as there is no single sample shellfish standard for *E. coli*. (continued)

Town	Location	MS4 Type	Receiving Waters	Sample Date	Result
Milford	Factory Lane at PED Bridge	Commercial	Wepawaug River	11/30/05	TNTC
Milford	Mayflower Drive E of Wayland	Residential	Great Marsh/LIS	12/07/04	TNTC
Milford	Mayflower Drive E of Wayland	Residential	Great Creek	11/30/05	TNTC
Milford	Mayflower Place	Residential	Great Creek	09/11/07	TNTC
Milford	Mayflower Place	Residential	Great Creek	11/13/08	TNTC
Milford	Mayflower Place	Residential	Great Creek	10/15/09	>2500
Milford	Mayflower Place	Residential	Great Creek	11/04/10	720
Milford	Naugatuck Avenue	Residential	Housatonic River	10/15/09	100
Milford	Naugatuck Avenue at Beaver Brook	Commercial	Beaver Brook	12/07/04	TNTC
Milford	Naugatuck Avenue at Beaver Brook	Commercial	Beaver Brook	09/11/07	TNTC
Milford	Naugatuck Avenue at Beaver Brook	Commercial	Beaver Brook	11/13/08	3,500
Milford	Naugatuck Avenue at Beaver Brook	Commercial	Beaver Brook	10/15/09	510
Milford	Naugatuck Avenue at Beaver Brook	Commercial	Beaver Brook	11/04/10	>2000
Milford	Research Drive at Quarry Road	Industrial	Farley Brook	09/11/07	1,420
Milford	Research Drive at Quarry Road	Industrial	Farley Brook	11/13/08	1,600
Milford	Research Drive at Quarry Road	Industrial	Farley Brook	10/15/09	1,450
Milford	Research Drive at Quarry Road	Industrial	Farley Brook	11/04/10	810
Milford	Woodmont Road	Industrial	Indian River	12/07/04	1,100
Milford	Woodmont Road	Industrial	Indian River	09/11/07	TNTC
Milford	Woodmont Road	Industrial	Indian River	11/13/08	2,900
Milford	Woodmont Road	Industrial	Indian River	10/15/09	630
Milford	Woodmont Road	Industrial	Indian River	11/04/10	>2000
Orange	E of Mapledale Road D70-6	Residential	Wepawaug River	12/29/05	220
Orange	E of Mapledale Road D70-6	Residential	Wepawaug River	02/03/06	93
Orange	E of Mapledale Road D70-6	Residential	Wepawaug River	11/08/06	35
Orange	E of Mapledale Road D70-6	Residential	Wepawaug River	09/11/07	1,986
Orange	E of Mapledale Road D70-6	Residential	Wepawaug River	11/25/08	219
Orange	E of Mapledale Road D70-6	Residential	Wepawaug River	10/07/09	>2420
Orange	E of Mapledale Road D70-6	Residential	Wepawaug River	10/15/10	179
Orange	South of Prindle Hill Road D23-3	Industrial	Oyster River	12/29/05	140
Orange	South of Prindle Hill Road D23-3	Industrial	Oyster River	02/03/06	17
Orange	South of Prindle Hill Road D23-3	Industrial	Oyster River	11/08/06	1,733

Orange	South of Prindle Hill Road D23-3	Industrial	Oyster River	09/11/07	1,733
Orange	South of Prindle Hill Road D23-3	Industrial	Oyster River	11/25/08	2,420
Orange	South of Prindle Hill Road D23-3	Industrial	Oyster River	10/07/09	2,420

Table 7: List of MS4 sample locations and *E. coli* (colonies/100 mL) results in the Milford Estuary. The results cannot be compared to the water quality standard as there is no single sample shellfish standard for *E. coli*. (continued)

Town	Location	MS4 Type	Receiving Waters	Sample Date	Result
Orange	South of Prindle Hill Road D23-3	Industrial	Oyster River	10/15/10	1,046
Orange	S of Prindle Hill Road E of Edson Road D23-4	Industrial	Oyster River	12/29/05	130
Orange	S of Prindle Hill Road E of Edson Road D23-4	Industrial	Oyster River	02/03/06	48
Orange	S of Prindle Hill Road E of Edson Road D23-4	Industrial	Oyster River	11/08/06	113
Orange	S of Prindle Hill Road E of Edson Road D23-4	Industrial	Oyster River	09/11/07	>2,420
Orange	S of Prindle Hill Road E of Edson Road D23-4	Industrial	Oyster River	11/25/08	435
Orange	S of Prindle Hill Road E of Edson Road D23-4	Industrial	Oyster River	10/07/09	2,420
Orange	S of Prindle Hill Road E of Edson Road D23-4	Industrial	Oyster River	10/15/10	1,203
Orange	SW of Racebrook Road D23-5	Commercial	Silver Brook	12/29/05	10
Orange	SW of Racebrook Road D23-5	Commercial	Silver Brook	02/03/06	145
Orange	SW of Racebrook Road D23-5	Commercial	Silver Brook	11/08/06	23
Orange	SW of Racebrook Road D23-5	Commercial	Silver Brook	09/11/07	88
Orange	SW of Racebrook Road D23-5	Commercial	Silver Brook	11/25/08	73
Orange	SW of Racebrook Road D23-5	Commercial	Silver Brook	10/07/09	961
Orange	SW of Racebrook Road D23-5	Commercial	Silver Brook	10/15/10	3
Orange	W of Lambert Road D42-1	Residential	Indian River	12/29/05	66
Orange	W of Lambert Road D42-1	Residential	Indian River	02/03/06	249
Orange	W of Lambert Road D42-1	Residential	Indian River	11/08/06	248
Orange	W of Lambert Road D42-1	Residential	Indian River	09/11/07	>2,420
Orange	W of Lambert Road D42-1	Residential	Indian River	11/25/08	2,419
Orange	W of Lambert Road D42-1	Residential	Indian River	10/07/09	461
Orange	W of Lambert Road D42-1	Residential	Indian River	10/15/10	387
Orange	W of Lindy Street D44-1	Commercial	Silver Brook	12/29/05	650
Orange	W of Lindy Street D44-1	Commercial	Silver Brook	02/03/06	579
Orange	W of Lindy Street D44-1	Commercial	Silver Brook	11/08/06	517
Orange	W of Lindy Street D44-1	Commercial	Silver Brook	09/11/07	2,420

Orange	W of Lindy Street D44-1	Commercial	Silver Brook	11/25/08	1,553
Orange	W of Lindy Street D44-1	Commercial	Silver Brook	10/07/09	>2420
Orange	W of Lindy Street D44-1	Commercial	Silver Brook	10/15/10	129,937

Table 7: List of MS4 sample locations and *E. coli* (colonies/100 mL) results in the Milford Estuary. The results cannot be compared to the water quality standard as there is no single sample shellfish standard for *E. coli*. (continued)

Town	Location	MS4 Type	Receiving Waters	Sample Date	Result
Stratford	Park and Maple Street	Residential	LIS	09/15/05	21
Stratford	Park and Maple Street	Residential	LIS	09/14/06	13
Stratford	Ryders Lane	Commercial	Housatonic River	07/23/08	153
Stratford	Ryders Lane	Commercial	Housatonic River	10/07/09	417
West Haven	Elm and Kimberly Avenue	Commercial	LIS	12/01/04	1,800
West Haven	Elm and Kimberly Avenue	Commercial	LIS	09/15/05	TNTC
West Haven	Elm and Kimberly Avenue	Commercial	LIS	09/14/06	700
West Haven	Elm and Kimberly Avenue	Commercial	LIS	11/20/07	TNTC
West Haven	Elm and Kimberly Avenue	Commercial	LIS	12/11/08	1,700
West Haven	Elm and Kimberly Avenue	Commercial	LIS	09/11/09	2,000
West Haven	Heffernan Street	Industrial	Oyster River	12/01/04	4,600
West Haven	Heffernan Street	Industrial	Oyster River	09/15/05	TNTC
West Haven	Heffernan Street	Industrial	Oyster River	09/14/06	1,000
West Haven	Heffernan Street	Industrial	Oyster River	11/20/07	570
West Haven	Heffernan Street	Industrial	Oyster River	12/11/08	4,450
West Haven	Heffernan Street	Industrial	Oyster River	09/11/09	2,000
West Haven	Lake Street	Residential	LIS	12/01/04	3,100
West Haven	Lake Street	Residential	LIS	09/15/05	TNTC
West Haven	Lake Street	Residential	LIS	09/14/06	15,000
West Haven	Lake Street	Residential	LIS	11/20/07	TNTC
West Haven	Lake Street	Residential	LIS	12/11/08	7,600
West Haven	Lake Street	Residential	LIS	09/11/09	2,000
West Haven	Oaks Street	Commercial	LIS	12/01/04	TNTC
West Haven	Oaks Street	Commercial	LIS	09/15/05	TNTC
West Haven	Oaks Street	Commercial	LIS	09/14/06	180
West Haven	Oaks Street	Commercial	LIS	12/11/08	1,800
West Haven	Oaks Street	Commercial	LIS	09/11/09	2,000
West Haven	Woodmont Street	Residential	Oyster River	12/01/04	2,700
West Haven	Woodmont Street	Residential	Oyster River	09/15/05	TNTC
West Haven	Woodmont Street	Residential	Oyster River	09/14/06	670
West Haven	Woodmont Street	Residential	Oyster River	11/20/07	TNTC

West Haven	Woodmont Street	Residential	Oyster River	12/11/08	3,800
West Haven	Woodmont Street	Residential	Oyster River	09/11/09	50

Publicly Owned Treatment Works

According to the 2005 Milford Estuary Report, there are nine water pollution control facilities (WPCF) that discharge to the Housatonic River, two of which are located in Milford, CT. The Beaver Brook WPCF (CT0100749) and Housatonic WPCF (CT0101656) are located on the Housatonic River in Milford and have the potential to impact the shellfish growing waters in the Milford Estuary (Milford, 2005). There is one private WPCF in Milford at the Equitable Life Assurance Society of the United States at 488 Wheeler's Farm Road. This plant was inspected in 2002 by DEP and was found to be in compliance. The Stratford WPCF is also considered a direct source of pollution to the Milford Estuary, and was included in Table 8 (Milford, 2005). According to the 2005 Milford Estuary Report, the Interstate Environmental Commission (IEC) inspected the effluent from the Beaver Brook and Housatonic WPCFs in 2005 and reported no exceedances of the WQS. The Housatonic WPCF was upgraded from 2004-2005 with a new pump station and associated gravity sewers and force mains. There was one Stratford WPCF pump station bypass in 2004 that resulted in bed closures in the Milford Estuary. In 2005, the area south of Charles Island was closed due to a Stratford WPCF sewage bypass and Approved shellfish beds were closed due to a West Haven WPCF bypass. Bacteria data from the effluent of these three WPCFs are included in Table 8. The Beaver Brook WPCF did not exceed its permit limits on any date sampled. The Housatonic River WPCF exceeded its 7-day geometric mean once in 2009 and its 30-day geometric mean once in 2010 and 2011. The Stratford WPCF exceeded its 7-day geometric mean multiple times from 2009-2011.

Table 8: Wastewater treatment plant fecal coliform (colonies/100 mL) data discharging to the Milford Estuary

Town	Permitee	Permit Number	Receiving Water	Date	30-Day Geometric Mean	7-Day Geometric Mean
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	01/31/2009	49	22
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	02/28/2009	17	32
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	03/31/2009	10	19
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	04/30/2009	6	5
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	05/31/2009	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	06/30/2009	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	07/31/2009	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	08/31/2009	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	09/30/2009	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	10/31/2009	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	11/30/2009	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	12/31/2009	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	01/31/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	02/28/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	03/31/2010	1	1

Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	04/30/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	05/31/2010	1	1

Table 8: Wastewater treatment plant fecal coliform (colonies/100 mL) data discharging to the Milford Estuary (continued)

Town	Permittee	Permit Number	Receiving Water	Date	30-Day Geometric Mean	7-Day Geometric Mean
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	06/30/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	07/31/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	08/31/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	09/30/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	10/31/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	11/30/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	12/31/2010	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	01/31/2011	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	02/28/2011	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	03/31/2011	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	04/30/2011	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	05/31/2011	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	06/30/2011	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	07/31/2011	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	08/31/2011	1	1
Milford	Beaver Brook WPCF	CT0100749	Milford Estuary	09/30/2011	1	1
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	01/31/2009	78	144
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	02/28/2009	16	118
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	03/31/2009	5	167
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	04/30/2009	5	23
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	05/31/2009	6	16
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	06/30/2009	10	438
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	07/31/2009	21	267
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	08/31/2009	5	105
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	09/30/2009	31	139
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	10/31/2009	9	43
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	11/30/2009	6	20
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	12/31/2009	3	33
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	01/31/2010	3	15
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	02/28/2010	2	7
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	03/31/2010	9	59

Milford	Housatonic River WPCF	CT0101656	Milford Estuary	04/30/2010	1	3
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	05/31/2010	2	5
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	06/30/2010	4	36

Table 8: Wastewater treatment plant fecal coliform (colonies/100 mL) data discharging to the Milford Estuary (continued)

Town	Permittee	Permit Number	Receiving Water	Date	30-Day Geometric Mean	7-Day Geometric Mean
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	07/31/2010	16	31
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	08/31/2010	6	18
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	09/30/2010	7	38
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	10/31/2010	6	31
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	11/30/2010	12	116
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	12/31/2010	518	35
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	01/31/2011	15	9
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	02/28/2011	437	24
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	03/31/2011	9	67
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	04/30/2011	12	9
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	05/31/2011	6	92
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	06/30/2011	6	43
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	07/31/2011	168	380
Milford	Housatonic River WPCF	CT0101656	Milford Estuary	09/30/2011	22	19
Stratford	Stratford WPCF	CT0101036	Milford Estuary	01/31/2009	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	02/28/2009	46	2200
Stratford	Stratford WPCF	CT0101036	Milford Estuary	03/31/2009	24	70
Stratford	Stratford WPCF	CT0101036	Milford Estuary	04/30/2009	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	05/31/2009	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	06/30/2009	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	07/31/2009	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	08/31/2009	39	1700
Stratford	Stratford WPCF	CT0101036	Milford Estuary	09/30/2009	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	10/31/2009	26	1700
Stratford	Stratford WPCF	CT0101036	Milford Estuary	11/30/2009	26	1700
Stratford	Stratford WPCF	CT0101036	Milford Estuary	12/31/2009	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	01/31/2010	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	02/28/2010	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	03/31/2010	30	3500
Stratford	Stratford WPCF	CT0101036	Milford Estuary	04/30/2010	20	20

Stratford	Stratford WPCF	CT0101036	Milford Estuary	05/31/2010	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	06/30/2010	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	07/31/2010	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	08/31/2010	20	20

Table 8: Wastewater treatment plant fecal coliform (colonies/100 mL) data discharging to the Milford Estuary (continued)

Town	Permittee	Permit Number	Receiving Water	Date	30-Day Geometric Mean	7-Day Geometric Mean
Stratford	Stratford WPCF	CT0101036	Milford Estuary	09/30/2010	26	1700
Stratford	Stratford WPCF	CT0101036	Milford Estuary	10/31/2010	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	11/30/2010	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	12/31/2010	24	300
Stratford	Stratford WPCF	CT0101036	Milford Estuary	01/31/2011	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	02/28/2011	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	03/31/2011	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	04/30/2011	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	05/31/2011	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	06/30/2011	44	1700
Stratford	Stratford WPCF	CT0101036	Milford Estuary	07/31/2011	20	20
Stratford	Stratford WPCF	CT0101036	Milford Estuary	08/31/2011	29	500
Stratford	Stratford WPCF	CT0101036	Milford Estuary	09/30/2011	58	2400
30-Day Geometric Mean Permit Limit = 200 colonies/100 mL						
7-Day Geometric Mean Permit Limit = 400 colonies/100 mL						

Non-point Sources

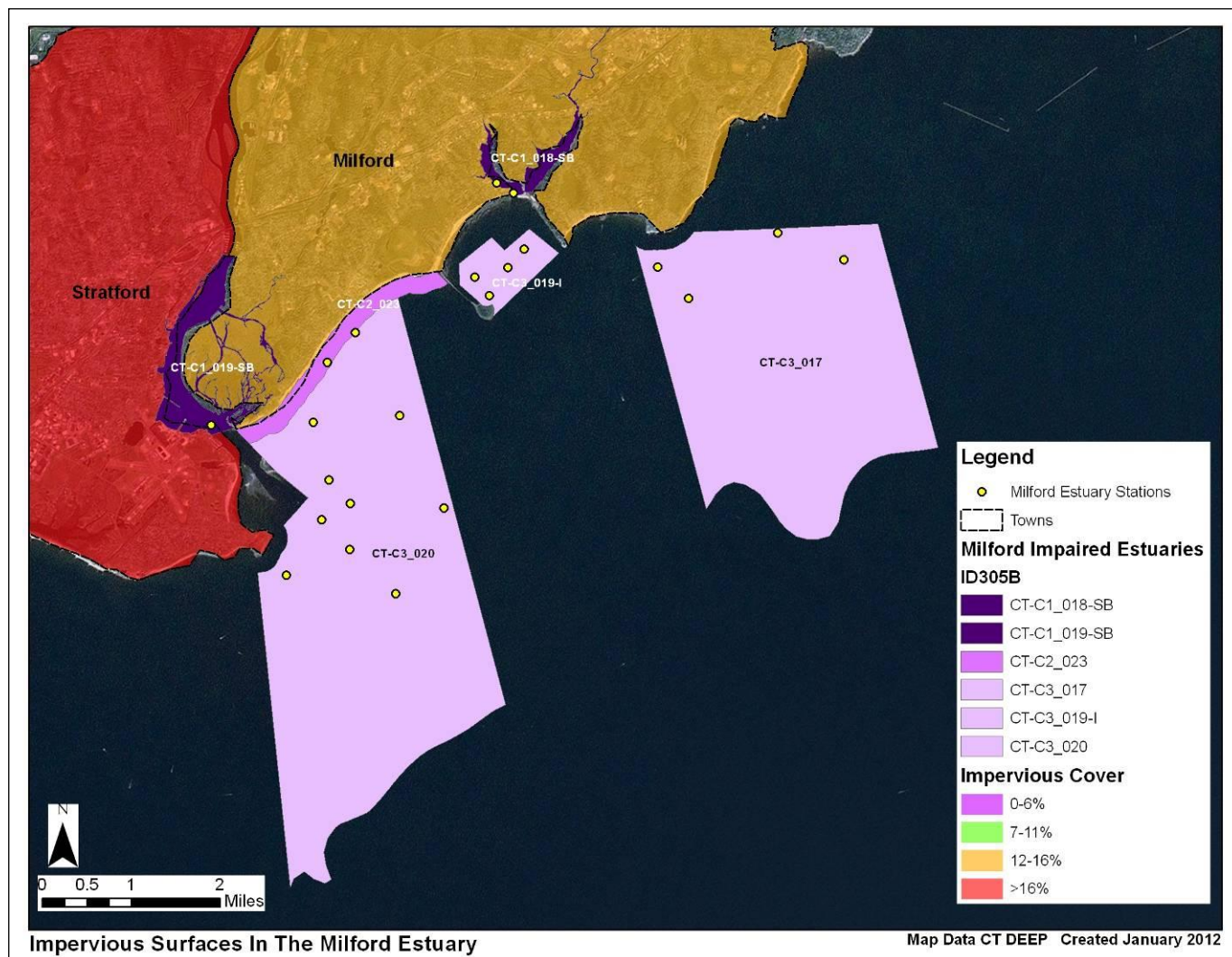
Non-point source (NPS) pollution comes from many diffuse sources and is more difficult to identify and control. NPS pollution is often associated with certain land-use practices. Examples of NPS that can contribute bacteria to surface waters include stormwater runoff, illicit discharges, insufficient septic systems, pet and wildlife waste, agriculture, and contact recreation (swimming or wading). With the waters of the Milford Estuary being tidally influenced, many bacterial sources that appear to be downstream of the impaired segment may be affecting the water quality in upstream segments. Potential sources of NPS to the impaired segments in the Milford Estuary are described below.

Stormwater Runoff from Developed Areas

The Cities of Milford and West Haven and the Town of Stratford are heavily developed. Impervious surfaces, or surface areas such as roofs and roads that force water to run off land surfaces rather than infiltrate soil, often characterize developed areas. Studies have shown a link between the amount of impervious area in a watershed and water quality conditions (CWP, 2003). In one study, researchers correlated the amount of fecal coliform to the percentage of land with impervious cover in a watershed

(Mallin *et al.*, 2000). Coastal land bordering the Milford Estuary in Milford and West Haven has 12-16% impervious surfaces and Stratford exceeds 16% impervious surfaces (Figure 6). Also, stations on Segments 2 (CT-C1_019-SB) and 6 (CT-C3_020) exceeded the WQS for fecal coliform during wet-weather, which indicates that stormwater runoff is likely contributing bacteria to the estuary.

Figure 6: Impervious cover (%) for Milford and Westport, CT



Illicit Discharges and Insufficient Septic Systems

As shown in Figure 4, the majority of Milford and Westport rely on a municipal sanitary sewer system. More specifically, the 2005 Milford Estuary Report claims that 95% of the shoreline is connected to the sewer system. Sewer system leaks and other illicit discharges can contribute bacteria to nearby surface waters.

A portion of the watershed, particularly near the Oyster River, Milford Point Road, and north of US Route 1, also relies on onsite wastewater treatment systems, such as septic systems. Properly managed septic systems and leach fields have the ability to effectively remove bacteria from waste. If systems are not maintained, waste will not be adequately treated and may result in bacteria reaching nearby surface and

ground water. As shown in Figure 4, a sewage treatment plant is located in Stratford along the Housatonic River near Segment 2 (CT-C1_019-SB). In Connecticut, local health directors or health districts are responsible for keeping track of any reported insufficient or failing septic systems in a specific municipality. Milford has a full-time health director (http://www.ci.milford.ct.us/Public_Documents/MilfordCT_Health/health). West Haven has a full-time health director (<http://www.whhd.org/>). Stratford has a full-time health director (<http://www.townofstratford.com/content/1302/402/615/default.aspx>).

Wildlife and Domestic Animal Waste

Wildlife, including waterfowl, and domestic animals within the municipalities of Milford, West Haven, and Stratford, including those present in the estuary, represent another potential source of bacteria to the impaired waterbodies. Elevated bacteria levels due solely to a natural population of wildlife are not subject to the WQS. However, any exacerbation of wildlife population sizes or residency times influenced by human activities is subject to the CT WQS and TMDL provisions. Multiple locations of concentrated migratory waterfowl have been identified throughout the Milford Estuary, including within Segment 1 (CT-C1_018-SB) in Gulf Pond, along the shoreline near Segment 4 (CT-C3_017) of outer New Haven Harbor, and within Segments 2 (CT-C1_019-SB), 3 (CT-C2_023), and 6 (CT-C3_020) near the mouth of the Housatonic River and the Charles Wheeler National Wildlife Refuge (Figure 4). With the construction of roads and drainage systems, wastes from these waterfowl may no longer be retained on the landscape, but instead may be conveyed via stormwater to the nearest surface waterbody. As such, physical land alterations can exacerbate the impact of these natural sources on water quality (USEPA, 2001).

Shortbeach Golf Course is located in Stratford near Segments 3 (CT-C2_023), and 6 (CT-C3_020). In addition, several large open areas are located along the shoreline, including Yeomans Park and Athletic Field near the Igor Sikorsky Memorial Airport, Charles Wheeler National Wildlife Refuge, Silver Sands State Park, and Welches Point Park. The 2005 Milford Estuary Report noted that large flocks of waterfowl migrate through Charles Wheeler National Wildlife Refuge. Geese and other waterfowl are known to congregate in open areas, including recreational fields, agricultural crop fields, and golf courses. In addition to creating a nuisance, large numbers of geese can create unsanitary conditions on the grassed areas and cause water quality problems due to bacterial contamination associated with their droppings. Large populations of geese can also lead to habitat destruction as a result of overgrazing on wetland and riparian plants.

As indicated previously, portions of Milford, West Haven, and Stratford near the estuary are heavily developed with commercial and residential properties. As such, waste from domestic animals, such as dogs, may also be contributing to bacteria concentrations in these impaired segments in the Milford Estuary.

Marinas

As noted previously, multiple marinas are located within the Milford Estuary, particularly in Milford Harbor and the Housatonic River (Figure 4 and Table 5). Marinas are located at the water's edge, and if no measures are taken to reduce pollutants, including buffering, pollutants can be transported via runoff from parking lots and hull maintenance areas directly into the marina basin. Common pollutants from marinas include bacteria and nutrients from stormwater runoff, solid and liquid materials used in boat maintenance and cleaning, fuel and oil, sewage from public restrooms and boat pump-outs, fish waste, and turbidity from boating activities. The CT DEEP has information on regional pump-out boats and facilities at its website, http://www.ct.gov/dep/cwp/view.asp?a=2705&q=323708&depNav_GID=1711. There are

several pump-out facilities in the Milford region. Most services are free and eliminate the possibility of vessels dumping raw wastes into Long Island Sound, which is prohibited by CT Water Quality Standards Number 24, “the discharge of sewage from any vessel to any water is prohibited.”

Recreation

People coming in direct contact with surface water presents another potential source of bacterial contamination. Microbial source tracking (MST) surveys conducted in New Hampshire have shown humans to be a source of bacterial contamination at beaches (Jones, 2008). Since there are several swimming areas along the shoreline, particularly at Silver Sands State Park, it is probable that some bacterial contamination can be attributed to human activities in the Milford Estuary.

Additional Sources

As shown in Figure 4, there are seven landfills located in Stratford, CT and one landfill located in Milford, CT, all of which are near the shoreline. The 2005 Milford Estuary Report noted two capped landfills in northeast Milford near the Housatonic River and Silver Sands State Park on East Broadway. In addition, two water permits through the National Pollutant Discharge Elimination System (NPDES) program, which regulates the type and nature of discharges to waterbodies, were identified in Stratford and three in Milford. The 2005 Milford Estuary Report noted other industrial discharges to the Housatonic River that should be identified as potential sources, including lead shot from the Remington Firearms Gun Club and Raymark hazardous waste sites.

There may be other sources not listed here or identified in Figure 4 that contribute to the observed water quality impairments in the Milford Estuary. Further monitoring and investigation will confirm the listed sources and discover additional ones. More detailed evaluation of potential sources is expected to become available as activities are conducted to implement this TMDL.

CURRENT MANAGEMENT ACTIVITIES

The Cities of Milford and West Haven and the Town of Stratford have developed and implemented programs to protect water quality from bacterial contamination. In addition, the National Shellfish Sanitation Program (NSSP) has multiple requirements for the protection and evaluation of shellfish growing areas. More information about this program is provided below and available online: <http://www.fda.gov/Food/FoodSafety/Product-SpecificInformation/Seafood/FederalStatePrograms/NationalShellfishSanitationProgram/ucm053724.htm>.

The NSSP requires the completion of a sanitary survey to determine acceptable and unacceptable growing areas, and to accurately classify a growing area as Approved, Conditionally Approved, Restricted, Conditionally Restricted, or Prohibited. A sanitary survey is an in-depth evaluation of all environmental factors impacting water quality in a shellfish growing area. Environmental factors include both actual and potential pollutant sources, whether natural or man-made, along with meteorological and hydrographic characteristics of the growing area. The principal components of a sanitary survey are: (1) identification and evaluation of pollutant sources, (2) evaluation of meteorological factors, (3) evaluation of hydrographic factors affecting the distribution of pollutants, and (4) assessment of water quality.

The sanitary survey includes data and results from the following:

1. Shoreline survey;
2. Survey of the bacteriological quality of the water;
3. Evaluation of meteorological, hydrodynamic, and geographic characteristics of the growing area;
4. Analysis of shoreline survey, bacteriological water quality, and meteorological, hydrodynamic, and geographic characteristics; and
5. Determination of the appropriate growing area classification

Maintaining updated sanitary survey records consists primarily of routinely evaluating major pollutant sources, collecting water quality data from sampling stations under the selected NSSP water quality monitoring strategy, and analyzing the data to ensure that the classification continues to represent current sanitary conditions in the growing area. The entire sanitary survey process must be repeated every 12 years. In the interim, the sanitary quality of each growing area must be reviewed as often as necessary to ensure appropriate classification. Certain sanitary survey components are required by the Model Ordinance to be updated annually and triennially.

The growing area classification and supporting data from the sanitary survey shall be reviewed at least every three years. As required by the NSSP, this triennial re-evaluation shall include:

1. A review of water quality sampling results;
2. Documentation of any new pollutant sources and evaluation of their impact on the growing area;
3. Re-evaluation of all pollutant sources, including sources previously identified in the sanitary survey, as necessary to fully evaluate any changes in the sanitary conditions of the growing area. Re-evaluation may or may not include a site visit;
4. A comprehensive report analyzing the sanitary survey data and determining whether the existing growing area classification is accurate or requires revision; and
5. Reclassification of the growing area if re-evaluation determines that conditions for classification have changed based on data collected during the triennial review

NSSP also requires that the sanitary survey be updated annually to reflect changes in conditions in the growing area. The annual re-evaluation shall include:

1. Field observation of pollutant sources during drive-through surveys, sample collections, or other information sources;
2. Addition and review of current year's water quality sampling results to a database collected in accordance with the bacteriological standards and sample collection required;
3. Review of available inspection reports and effluent samples collected from pollutant sources;
4. Review of available performance standards for various types of discharges impacting the growing area; and
5. A brief report documenting annual re-evaluation findings.

The most recent triennial re-evaluation for the Shellfish Growing Waters in the City of Milford was published in 2005 (Milford, 2005). According to this report and a 2010 classification amendment, two growing areas were candidates for re-classification. The Milford Gulf area was reclassified as Conditionally Restricted-Relay/Depuration due to updated marina dilution calculations for Milford Harbor, and the Milford Gulf Conditionally Approved area was reclassified as Conditionally Restricted-Relay/Depuration and is managed from October 1 – May 31.

Other efforts have been taken by Milford, West Haven, and Stratford to reduce bacteria to its surface waters. As indicated previously, Milford, West Haven, and Stratford are regulated under the MS4 program. The MS4 General Permit is required for any municipality with urbanized areas that initiates, creates, originates or maintains any discharge of stormwater from a storm sewer system to waters of the State. The MS4 permit requires towns to design a Stormwater Management Plan (SMP) that reduces the discharge of stormwater pollutants to improve water quality. The plan must address the following six minimum measures:

1. Public Education and Outreach.
2. Public Involvement/Participation.
3. Illicit discharge detection and elimination.
4. Construction site stormwater runoff control.
5. Post-construction stormwater management in the new development and redevelopment.
6. Pollution prevention/good housekeeping for municipal operations.

Each municipality is also required to submit an annual update outlining steps taken to meet the six minimum measures. The most recent updates that address bacterial contamination in the watershed are summarized in Tables 9, 10, and 11.

Table 9: Summary of MS4 requirement updates related to the reduction of bacterial contamination from Milford, CT (Permit # GSM000037)

Minimum Measure	Milford Annual Report Update
Public Outreach and Education	1) Published newspaper articles and letters to the editor regarding the affect of stormwater pollution in Long Island Sound, and measures that citizens can take to prevent stormwater pollution.
Public Involvement and Participation	1) Collaborating with the Southwest Conservation District and the Inland Wetlands Agency (IWA) on a study of the lower Wepawaug River Watershed. The goal of the project is to restore a portion of the Wepawaug River.

Table 9: Summary of MS4 requirement updates related to the reduction of bacterial contamination from Milford, CT (Permit # GSM000037) (continued)

Minimum Measure	Milford Annual Report Update
Public Involvement and Participation	2) Helped support volunteers on multiple clean ups throughout the city, focusing on shoreline parks.
Illicit Discharge Detection and Elimination	1) Approved 3 permits for connections to the City's stormwater drainage system.
Construction Site Stormwater Runoff Control	1) Issued 6 violations for construction activities, and enforcement actions were taken when necessary. 2) Continued to attend trainings, workshops, seminars, and courses in 2010.
Post Construction Stormwater management	1) Installed stormwater control structures in 2010. The IWA requires that a maintenance manual be maintained on-site for all commercial facilities.
Pollution Prevention and Good Housekeeping	1) Inspected and cleaned 121 catch basins in 2010. Approximately 700 cubic yards of material were removed from these catch basins.

Table 10: Summary of MS4 requirement updates related to the reduction of bacterial contamination from West Haven, CT (Permit # GSM000002)

Minimum Measure	West Haven Annual Report (November 2009)
Public Outreach and Education	1) Conducted annual beach clean-ups. 2) Worked with Beautification Committee to plant along roadways. 3) Created Stormwater Committee.
Public Involvement and Participation	1) Placed educational stickers on city trash barrels, recycling bins, and school signs. 2) Developed a waste/recycling brochure and mailed to residents.
Illicit Discharge Detection and Elimination	1) Responded to a citizen complaint on Mohawk Drive. 2) Sampled six outfalls during wet-weather. 3) Monitored outfall screening for illicit discharges and responded to citizen complaints. 4) Completed mapping of the storm sewer system.
Construction Site Stormwater Runoff Control	1) Conducted random inspections for construction operator compliance.
Post Construction Stormwater Management	No updates.
Pollution Prevention and Good Housekeeping	1) Catch basin cleaning conducted as necessary. 2) Maintains records of storm water facilities and repairs. 3) Swept 127 miles of town roads.

Table 11: Summary of MS4 requirement updates related to the reduction of bacterial contamination from Stratford, CT (Permit # GSM000105)

Minimum Measure	Stratford Annual Report (2010)
Public Outreach and Education	1) Continuing to develop school educational program. 2) Received a grant for stormwater stenciling program to be completed by 2011. 3) Developed an educational brochure on stormwater permitting program and BMPs.
Public Involvement and Participation	1) Continuing to enlist volunteer groups to distribute brochures, perform stenciling, and promote clean-ups. 2) Developed Project Green Sweep program to clean up river.
Illicit Discharge Detection and Elimination	1) Continuing to develop map of storm sewer outfalls. 2) Continuing to develop an ordinance regulating stormwater discharges.
Construction Site Stormwater Runoff Control	1) Reviewed and updated land use regulations and E&S regulations. 2) Continuing to develop an inspection program for E&S control compliance.
Post Construction Stormwater Management	1) Continuing to develop new ordinance controlling water quality and quantity. 2) Continuing to develop a list of BMPs strategies.
Pollution Prevention and Good Housekeeping	1) Developing a training program for municipal employees. 2) Continued annual street sweeping program. 3) Developed program for stream and outfall cleaning, including catch basins.

RECOMMENDED NEXT STEPS

Milford, West Haven, and Stratford have developed and implemented programs to protect water quality from bacterial contamination. Future mitigative activities are necessary to ensure the long-term protection of Segments 1 – 6 in the Milford Estuary and have been prioritized below.

1) Continue monitoring of permitted sources.

There are at least 39 permitted sources in the Milford Estuary, some of which have shown historically high bacteria concentrations. Further monitoring will provide information essential to better locate, understand, and reduce pollution sources. If any current monitoring is not done with appropriate bacterial indicator based on the receiving water, then a recommended change during the next permit reissuance is to include the appropriate indicator species. If facility monitoring indicates elevated bacteria, then implementation of permit is required, and any voluntary measures to identify and reduce sources of bacterial contamination at the facility are also recommended. Regular monitoring should be established for all permitted sources to ensure compliance with permit requirements and to determine if current requirements are adequate or if additional measures are necessary for water quality protection.

Section 6(k) of the MS4 General Permit requires a municipality to modify their Stormwater Management Plan to implement the TMDL within four months of TMDL approval by EPA if stormwater within the municipality contributes pollutant(s) in excess of the allocation established by the TMDL. For discharges to impaired waterbodies, the municipality must assess and modify the six minimum measures of its plan, if necessary, to meet TMDL standards. Particular focus should be placed on the following plan components: public education, illicit discharge detection and elimination, stormwater structures cleaning, and the repair, upgrade, or retrofit of storm sewer structures. The goal of these modifications is to establish a program that improves water quality consistent with TMDL requirements. Modifications to the Stormwater Management Plan in response to TMDL development should be submitted to the Stormwater Program of DEEP for review and approval.

Tables 12 and 13 detail the appropriate bacteria criteria for use as waste load allocations established by this TMDL for use as water quality targets by permittees as permits are renewed and updated, within the Milford Estuary.

For any municipality subject to an MS4 permit and affected by a TMDL, the permit requires a modification of the SMP to include BMPs that address the included impairment. In the case of bacteria related impairments municipal BMPs could include: implementation or improvement to existing nuisance wildlife programs, septic system monitoring programs, any additional measures that can be added to the required illicit discharge detection and elimination (IDDE) programs, and increased street sweeping above basic permit requirements. Any non-MS4 municipalities can implement these same types of initiatives in effort to reduce bacteria source loading to impaired waterways.

Any facilities that discharge non-MS4 regulated stormwater should update their Pollution Prevention Plan to reflect BMPs that can reduce bacteria loading to the receiving waterway. These BMPs could include nuisance wildlife control programs and any installations that increase surface infiltration to reduce overall stormwater volumes. Facilities that are regulated under the Commercial Activities Stormwater Permit should report any updates to their SMP in their summary documentation submitted to DEEP.

Table 12. Bacteria (Enterococci) TMDLs, WLAs, and LAs for Recreational Uses.

		Instantaneous Enterococcus (#/100mL)				Geometric Mean Enterococcus (#/100mL)	
Class	Bacteria Source	WLA ⁶		LA ⁶		WLA ⁶	LA ⁶
	Recreational Use	1	2	1	3	All	All
SA ⁵	Illicit sewer connection	0	0			0	
	Leaking sewer lines	0	0			0	
	Stormwater (MS4s)	104 ⁷	500 ⁷			35 ⁷	
	Stormwater (non-MS4)			104 ⁷	500 ⁷		35 ⁷
	Wildlife direct discharge			104 ⁷	500 ⁷		35 ⁷
	Human or domestic animal direct discharge ³			104	500		35
		Instantaneous Enterococcus (#/100mL)				Geometric Mean Enterococcus (#/100mL)	
Class	Bacteria Source	WLA ⁶		LA ⁶		WLA ⁶	LA ⁶
	Recreational Use	1	2	1	3	All	All
SB ⁵	Non-Stormwater NPDES	104	500			35	
	CSOs	104	500			35	
	SSOs	0	0			0	
	OBDs ⁴	0	0			0	
	Illicit sewer connection	0	0			0	
	Leaking sewer lines	0	0			0	
	Stormwater (MS4s)	104 ⁷	500 ⁷			35 ⁷	
	Stormwater (non-MS4)			104 ⁷	500 ⁷		35 ⁷
	Wildlife direct discharge			104 ⁷	500 ⁷		35 ⁷
	Human or domestic animal direct discharge ³			104	500		35

- (1) **Designated Swimming.** Procedures for monitoring and closure of bathing areas by State and Local Health Authorities are specified in: Guidelines for Monitoring Bathing Waters and Closure Protocol, adopted jointly by the Department of Environmental Protections and the Department of Public Health. May 1989. Revised April 2003 and updated December 2008.
- (2) **Non-Designated Swimming.** Includes areas otherwise suitable for swimming but which have not been designated by State or Local authorities as bathing areas, waters which support tubing, water skiing, or other recreational activities where full body contact is likely.
- (3) **All Other Recreational Uses.**

- (4) Criteria for the protection of recreational uses in Class B waters do not apply when disinfection of sewage treatment plant effluents is not required consistent with Standard 23. (Class B surface waters located north of Interstate Highway I-95 and downstream of a sewage treatment plant providing seasonal disinfection May 1 through October 1, as authorized by the Commissioner.)
- (5) Human direct discharge = swimmers
- (6) Unless otherwise required by statute or regulation, compliance with this TMDL will be based on ambient concentrations and not end-of-pipe bacteria concentrations
- (7) Replace numeric value with "natural levels" if only source is naturally occurring wildlife. Natural is defined as the biological, chemical and physical conditions and communities that occur within the environment which are unaffected or minimally affected by human influences (CT DEEP 2011a). Sections 2.2.2 and 6.2.7 of this Core Document deal with BMPs and delineating type of wildlife inputs.

Table 13: Bacteria (Fecal Coliform) TMDLs, WLAs, and LAs for Shellfish Harvesting Areas.

		Geometric Mean Fecal coliform (#/100mL) ⁴		90% less than Statistical measure Fecal Coliform (#/100mL) ⁴	
Class	Bacteria Source ¹	WLA ⁵	LA ⁵	WLA ⁵	LA ⁵
SA Direct Consumption	CSOs	14		31	
	SSOs	0		0	
	OBDs ³	0		0	
	Illicit sewer connection	0		0	
	Leaking sewer lines	0		0	
	Stormwater (MS4s)	14 ⁶		31 ⁶	
	Stormwater (non-MS4)		14 ⁶		31 ⁶
	Wildlife direct discharge		14 ⁶		31 ⁶
	Human or domestic animal direct discharge ²		14		31
SB Indirect Consumption	Non-Stormwater NPDES	88		260	
	CSOs	88		260	
	SSOs	0		0	
	OBDs ³	0		0	
	Illicit sewer connection	0		0	
	Leaking sewer lines	0		0	
	Stormwater (MS4s)	88 ⁶		260 ⁶	
	Stormwater (non-MS4)		88 ⁶		260 ⁶
	Wildlife direct discharge		88 ⁶		260 ⁶
	Human or domestic animal direct discharge ²		88		260

(1) Criteria are based on utilizing the mTec method as specified in the U.S. Food and Drug Administration National Shellfish Sanitation Program-Model Ordinance (NSSP-MO) document *Guide for the Control of Molluscan Shellfish 2007*.

(2) Human direct discharge = swimmers

(3) All coastal and inland waters in Connecticut are designated as No Discharge Areas for Overboard Discharges (OBDs) from marine vessels with Marine Sanitation Devices.

(4) Adverse Condition Allocations apply to areas affected by Point Sources. Adverse Condition or Random Sampling Allocations apply to areas affected by Nonpoint Sources. Adverse condition is defined as "... a State or situation caused by meteorological, hydrological or seasonal events or point source discharges that has historically resulted in elevated [bacteria] levels in the particular growing area." USFDA 2005

(5) Unless otherwise required by statute or regulation, compliance with this TMDL will be based on ambient concentrations and not end-of-pipe bacteria concentrations

(6) Replace numeric value with "natural levels" if only source is naturally occurring wildlife. Natural is defined as the biological, chemical and physical conditions and communities that occur within the environment which are unaffected or minimally affected by human influences (CT DEEP 2011a). Sections 2.2.2 and 6.2.7 of this Core Document deal with BMPs and delineating type of wildlife inputs.

2) Identify areas in Milford, West Haven, and Stratford to implement Best Management Practices (BMPs) to control stormwater runoff.

As noted previously, most of Milford, West Haven, and Stratford near the Milford Estuary have impervious cover greater than 12% and are urban areas regulated under the MS4 program. As such, stormwater runoff is likely contributing bacteria to the Milford Estuary. To identify areas that are

contributing bacteria to the impaired segments, municipalities should conduct wet-weather sampling at stormwater outfalls that discharge directly to the impaired segments in Milford Estuary. To treat stormwater runoff, the towns should identify areas along the developed sections of the impaired segments to install BMPs designed to encourage stormwater to infiltrate the ground before entering the waterbodies. These BMPs would disconnect impervious areas and reduce pollutant loads to the estuary. More detailed information and BMP recommendations can be found in the core TMDL document.

3) Implement a program to evaluate the sanitary sewer system.

Most of Milford and Stratford near the estuary rely on a municipal sewer system (Figure 4). It is important for Milford and Stratford to develop a program to evaluate its sanitary sewer system and reduce leaks and overflows. This program should include periodic inspections of the sewer line.

4) Develop a system to monitor septic systems.

Although the majority of residents near the Milford Estuary rely on a municipal sanitary sewer system, some rely on septic systems. If not already in place, Milford, West Haven, and Stratford should establish a program to ensure that existing septic systems are properly operated and maintained. For instance, communities can create an inventory of existing septic systems through mandatory inspections. Inspections help encourage proper maintenance and identify failed and sub-standard systems. Policies that govern the eventual replacement of the sub-standard systems within a reasonable timeframe could be adopted. Municipalities can also develop programs to assist citizens with the replacement and repair of older and failing systems.

5) Evaluate municipal education and outreach programs regarding animal waste.

Any education and outreach program should highlight the importance of not feeding waterfowl and wildlife and managing waste from horses, dogs, and other pets. Municipalities and residents can take measures to minimize waterfowl-related impacts by allowing tall, coarse vegetation to grow in riparian areas of impaired segments frequented by waterfowl. Waterfowl, especially grazers like geese, prefer easy access to water. Maintaining an uncut vegetated buffer along the shore will make the habitat less desirable to geese and encourage migration. In addition, any educational program should emphasize that feeding waterfowl, such as ducks, geese, and swans, may contribute to water quality impairments in the Milford Estuary and can harm human health and the environment. Animal wastes should be disposed of away from any waterbody or storm drain system. BMPs effective at reducing the impact of animal waste on water quality include installing signage, providing pet waste receptacles in high-use areas, enacting ordinances requiring the clean-up of pet waste, and targeting educational and outreach programs in problem areas.

6) Improve education and outreach programs regarding boats and marinas.

Marinas must comply with permit requirements that limit bacteria contribution to the Milford Estuary. Other programs, such as Connecticut's Clean Marina Program, may also be adopted by all marinas in the estuary to reduce bacteria contribution from non-point source pollution from marinas (http://www.ct.gov/dep/cwp/view.asp?a=2705&q=323530&depNav_GID=1635). The Clean Marina Program is a voluntary program that encourages inland and coastal marina operators to minimize pollution, and recognizes Connecticut marinas, boatyards, and yacht clubs that go above and beyond regulatory compliance as "Certified Clean Marinas." All certified marinas receive a weatherproof Clean Marina Flag to fly at their facility and authorization to use the Clean Marina Program logo on company publications. CT DEEP recognizes certified Clean Marinas through press releases, on its web page, and

at public events. As a companion to the Clean Marina Program, the Clean Boater Program encourages boaters to use clean boating techniques when operating and maintaining their boats.

BACTERIA DATA AND PERCENT REDUCTIONS TO MEET THE TMDL**Table 14: Segment 1: LIS CB Inner – Milford Harbor & Gulf Pond Bacteria Data****Waterbody ID:** CT-C1_018-SB**Characteristics:** Saltwater, Class SB, Commercial Shellfishing Harvesting, Recreation, Habitat for Marine Fish and other Aquatic Life and Wildlife, Industrial Water Supply, and Navigation**Impairment:** Shellfish Harvesting (*fecal coliform*)**Water Quality Criteria for fecal coliform:**

Geometric Mean: 88 colonies/100 mL
 90% of samples less than: 260 colonies/100 mL

Percent Reduction to meet TMDL:

Geometric Mean: 20%
 90% of samples less than: 23%

Data: 2000 – 2011 from CT DEEP targeted sampling efforts, 2012 TMDL Cycle

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 1: LIS CB Inner – Milford Harbor & Gulf Pond (CT-C1_018-SB) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-08.3	harbor entrance in Gulf Pond flow	5/16/00	28	dry	42	NA
084-08.3	harbor entrance in Gulf Pond flow	6/13/00	51	wet		
084-08.3	harbor entrance in Gulf Pond flow	6/15/00	51	dry		
084-08.3	harbor entrance in Gulf Pond flow	6/20/00	51	wet		
084-08.3	harbor entrance in Gulf Pond flow	8/4/00	51	dry		
084-08.3	harbor entrance in Gulf Pond flow	9/7/00	22	dry		
084-08.3	harbor entrance in Gulf Pond flow	9/19/00	51	dry		
084-08.3	harbor entrance in Gulf Pond flow	4/3/01	14	wet	27	NA
084-08.3	harbor entrance in Gulf Pond flow	6/5/01	8	dry		
084-08.3	harbor entrance in Gulf Pond flow	7/30/01	51	dry		
084-08.3	harbor entrance in Gulf Pond flow	8/13/01	51	wet		
084-08.3	harbor entrance in Gulf Pond flow	10/2/01	50	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 1: LIS CB Inner – Milford Harbor & Gulf Pond (CT-C1_018-SB) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-08.3	harbor entrance in Gulf Pond flow	1/25/02	22	wet	21	NA
084-08.3	harbor entrance in Gulf Pond flow	1/28/02	2	dry		
084-08.3	harbor entrance in Gulf Pond flow	3/21/02	51	wet		
084-08.3	harbor entrance in Gulf Pond flow	5/6/02	11	dry		
084-08.3	harbor entrance in Gulf Pond flow	6/10/02	50	dry		
084-08.3	harbor entrance in Gulf Pond flow	6/18/02	36	dry		
084-08.3	harbor entrance in Gulf Pond flow	10/29/02	50	dry		
084-08.3	harbor entrance in Gulf Pond flow	4/28/03	36	wet	47	NA
084-08.3	harbor entrance in Gulf Pond flow	8/12/03	51	wet		
084-08.3	harbor entrance in Gulf Pond flow	8/21/03	51	dry		
084-08.3	harbor entrance in Gulf Pond flow	9/30/03	51	wet		
084-08.3	harbor entrance in Gulf Pond flow	3/25/04	11	dry	31	NA
084-08.3	harbor entrance in Gulf Pond flow	4/26/04	51	wet		
084-08.3	harbor entrance in Gulf Pond flow	11/29/04	51	wet		
084-08.3	harbor entrance in Gulf Pond flow	1/11/05	10	dry	14	NA
084-08.3	harbor entrance in Gulf Pond flow	10/17/05	20	wet		
084-08.3	harbor entrance in Gulf Pond flow	4/6/06	6	wet	34	NA
084-08.3	harbor entrance in Gulf Pond flow	4/27/06	47	wet		
084-08.3	harbor entrance in Gulf Pond flow	7/20/06	81	wet		
084-08.3	harbor entrance in Gulf Pond flow	7/31/06	57	wet		
084-08.3	harbor entrance in Gulf Pond flow	7/24/07	81	wet	68	NA
084-08.3	harbor entrance in Gulf Pond flow	9/12/07	81	wet		
084-08.3	harbor entrance in Gulf Pond flow	10/24/07	54	dry		
084-08.3	harbor entrance in Gulf Pond flow	10/31/07	56	dry		
084-08.3	harbor entrance in Gulf Pond flow	12/3/07	72	wet		
084-08.3	harbor entrance in Gulf Pond flow	2/5/08	12	dry	47	4
084-08.3	harbor entrance in Gulf Pond flow	2/20/08	20	wet		
084-08.3	harbor entrance in Gulf Pond flow	2/21/08	9	wet		
084-08.3	harbor entrance in Gulf Pond flow	3/13/08	17	dry		
084-08.3	harbor entrance in Gulf Pond flow	4/30/08	90	wet		
084-08.3	harbor entrance in Gulf Pond flow	6/9/08	860	wet		
084-08.3	harbor entrance in Gulf Pond flow	7/28/08	180	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 1: LIS CB Inner – Milford Harbor & Gulf Pond (CT-C1_018-SB) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-08.3	harbor entrance in Gulf Pond flow	4/1/09	1	dry	33	NA
084-08.3	harbor entrance in Gulf Pond flow	4/7/09	5	wet		
084-08.3	harbor entrance in Gulf Pond flow	4/14/09	12	dry		
084-08.3	harbor entrance in Gulf Pond flow	6/11/09	171	wet		
084-08.3	harbor entrance in Gulf Pond flow	7/23/09	171	wet		
084-08.3	harbor entrance in Gulf Pond flow	7/27/09	171	dry		
084-08.3	harbor entrance in Gulf Pond flow	9/1/09	10	dry		
084-08.3	harbor entrance in Gulf Pond flow	9/29/09	81	wet		
084-08.3	harbor entrance in Gulf Pond flow	9/30/09	18	dry		
084-08.3	harbor entrance in Gulf Pond flow	10/21/09	10	dry		
084-08.3	harbor entrance in Gulf Pond flow	10/26/09	620	wet		
084-08.3	harbor entrance in Gulf Pond flow	11/23/09	54	dry		
084-08.3	harbor entrance in Gulf Pond flow	3/25/10	50	wet	39	NA
084-08.3	harbor entrance in Gulf Pond flow	4/26/10	8	wet		
084-08.3	harbor entrance in Gulf Pond flow	5/4/10	171	wet		
084-08.3	harbor entrance in Gulf Pond flow	5/19/10	171	wet		
084-08.3	harbor entrance in Gulf Pond flow	8/25/10	91	wet		
084-08.3	harbor entrance in Gulf Pond flow	9/20/10	7	dry		
084-08.3	harbor entrance in Gulf Pond flow	12/15/10	20	wet		
084-08.3	harbor entrance in Gulf Pond flow	3/14/11	2	dry	26	NA
084-08.3	harbor entrance in Gulf Pond flow	4/18/11	171	wet		
084-08.3	harbor entrance in Gulf Pond flow	4/27/11	10	dry		
084-08.3	harbor entrance in Gulf Pond flow	5/23/11	136	wet		
084-08.3	harbor entrance in Gulf Pond flow	6/21/11	22	dry		
084-08.3	harbor entrance in Gulf Pond flow	6/27/11	32	dry		
084-84.0	Milford Harbor at DA/BA dock	9/7/00	51	dry	NA	NA
084-84.0	Milford Harbor at DA/BA dock	7/30/01	28	dry	104	23
084-84.0	Milford Harbor at DA/BA dock	8/13/01	51	wet		
084-84.0	Milford Harbor at DA/BA dock	8/23/01	790	dry		
084-84.0	Milford Harbor at DA/BA dock	1/25/02	54	wet	52	NA
084-84.0	Milford Harbor at DA/BA dock	10/29/02	51	dry		
084-84.0	Milford Harbor at DA/BA dock	11/29/04	51	wet	NA	NA

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 1: LIS CB Inner – Milford Harbor & Gulf Pond (CT-C1_018-SB) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-84.0	Milford Harbor at DA/BA dock	4/27/06	47	wet	NA	NA
084-84.0	Milford Harbor at DA/BA dock	2/5/07	20	dry	NA	NA
084-84.0	Milford Harbor at DA/BA dock	7/27/09	80	dry	65	NA
084-84.0	Milford Harbor at DA/BA dock	9/1/09	52	dry		
084-84.0	Milford Harbor at DA/BA dock	9/29/09	81	wet		
084-84.0	Milford Harbor at DA/BA dock	9/30/09	48	dry		
084-84.0	Milford Harbor at DA/BA dock	10/21/09	43	dry		
084-84.0	Milford Harbor at DA/BA dock	11/23/09	110	dry		
084-84.0	Milford Harbor at DA/BA dock	3/25/10	30	wet		
084-84.0	Milford Harbor at DA/BA dock	4/26/10	90	wet		
084-84.0	Milford Harbor at DA/BA dock	5/4/10	410	wet		
084-84.0	Milford Harbor at DA/BA dock	5/19/10	160	wet		
084-84.0	Milford Harbor at DA/BA dock	8/25/10	91	wet		
084-84.0	Milford Harbor at DA/BA dock	4/27/11	91	dry	86	NA
084-84.0	Milford Harbor at DA/BA dock	6/27/11	81	dry		
Shaded cells indicate an exceedance of water quality criteria						
†Average of two duplicate samples						
** Weather conditions for selected data taken from Hartford because local station had missing data						
*Indicates geometric mean and 90% less than values used to calculate the percent reduction						

Wet and dry weather geometric mean values for all monitoring stations on Segment 1: LIS CB Inner – Milford Harbor & Gulf Pond (CT-C1_018-SB)

Station Name	Station Location	Years Sampled	Number of Samples		Geometric Mean		
			Wet	Dry	All	Wet	Dry
084-08.3	Harbor entrance in Gulf Pond flow	2000-2011	37	32	34	54	20
084-84.0	Milford Harbor at DA/BA dock	2000-2002, 2004, 2006-2007, 2009-2011	10	12	72	78	67
Shaded cells indicate an exceedance of water quality criteria							

Table 15: Segment 2: LIS CB Inner – Housatonic River (mouth) Bacteria Data**Waterbody ID:** CT-C1_019-SB**Characteristics:** Saltwater, Class SB, Commercial Shellfishing Harvesting, Recreation, Habitat for Marine Fish and other Aquatic Life and Wildlife, Industrial Water Supply, and Navigation**Impairment:** Shellfish Harvesting (*fecal coliform bacteria*)**Water Quality Criteria for fecal coliform:**

Geometric Mean: 88 colonies/100 mL
 90% of samples less than: 260 colonies/100 mL

Percent Reduction to meet TMDL:

Geometric Mean: 36%
 90% of samples less than: N/A

Data: 2007 – 2010 from CT DEEP targeted sampling efforts, 2012 TMDL Cycle

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 2: LIS CB Inner – Housatonic River (mouth) (CT-C1_019-SB) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-02.1	Housatonic River at G C "9" & N "10"	9/12/07	81	wet	65	NA
084-02.1	Housatonic River at G C "9" & N "10"	10/24/07	41	dry		
084-02.1	Housatonic River at G C "9" & N "10"	10/31/07	81	dry		
084-02.1	Housatonic River at G C "9" & N "10"	6/9/08	170	wet	137* (36%)	NA
084-02.1	Housatonic River at G C "9" & N "10"	7/28/08	110	dry		
084-02.1	Housatonic River at G C "9" & N "10"	4/1/09	44	dry	64	NA
084-02.1	Housatonic River at G C "9" & N "10"	7/27/09	94	dry		
084-02.1	Housatonic River at G C "9" & N "10"	6/9/10	3	dry	NA	NA

Shaded cells indicate an exceedance of water quality criteria**†** Average of two duplicate samples****** Weather conditions for selected data taken from Hartford because local station had missing data***** Indicates geometric mean and 90% less than values used to calculate the percent reduction

Wet and dry weather fecal coliform (colonies/100 mL) geometric mean values for all monitoring stations on Segment 2: LIS CB Inner – Housatonic River (mouth) (CT-C1_019-SB)

Station Name	Station Location	Years Sampled	Number of Samples		Geometric Mean		
			Wet	Dry	All	Wet	Dry
084-02.1	Housatonic River at G C "9" & N "10"	2007-2010	2	6	53	117	41
Shaded cells indicate an exceedance of water quality criteria							

Table 16: Segment 3: LIS CB Shore – Walnut Beach Bacteria Data**Waterbody ID:** CT-C2_023

Characteristics: Saltwater, Class SA, Shellfishing Harvesting for Direct Human Consumption, Recreation, Habitat for Marine Fish and other Aquatic Life and Wildlife, Industrial Water Supply, and Navigation

Impairment: Shellfish harvesting (*fecal coliform bacteria*)

Water Quality Criteria for fecal coliform:

Geometric Mean: 14 colonies/100 mL

90% of samples less than: 31 colonies/100 mL

Percent Reduction to meet TMDL:

Geometric Mean: NA

90% of samples less than: 10%

Data: 2000 - 2011 from CT DEEP targeted sampling efforts, 2012 TMDL Cycle

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 3: LIS CB Shore – Walnut Beach (CT-C2_023) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-04.0	S. Laurel Beach	1/6/00	2	wet	3	NA
084-04.0	S. Laurel Beach	4/24/00	6	wet		
084-04.0	S. Laurel Beach	5/16/00	2	dry		
084-04.0	S. Laurel Beach	6/8/00	50	wet		
084-04.0	S. Laurel Beach	6/12/00	2	wet		
084-04.0	S. Laurel Beach	6/20/00	2	wet		
084-04.0	S. Laurel Beach	7/18/00	4	wet		
084-04.0	S. Laurel Beach	8/4/00	2	dry		
084-04.0	S. Laurel Beach	8/8/00	2	wet		
084-04.0	S. Laurel Beach	8/9/00	8	wet		
084-04.0	S. Laurel Beach	8/10/00	4	dry		
084-04.0	S. Laurel Beach	8/15/00	2	wet		
084-04.0	S. Laurel Beach	8/16/00	2	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 3: LIS CB Shore – Walnut Beach (CT-C2_023) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-04.0	S. Laurel Beach	4/3/01	2	wet	2	NA
084-04.0	S. Laurel Beach	6/18/01	11	wet		
084-04.0	S. Laurel Beach	8/13/01	2	wet		
084-04.0	S. Laurel Beach	8/15/01	2	dry		
084-04.0	S. Laurel Beach	9/18/01	2	dry		
084-04.0	S. Laurel Beach	10/3/01	2	wet		
084-04.0	S. Laurel Beach	5/16/02	2	wet	2	NA
084-04.0	S. Laurel Beach	5/20/02	2	wet		
084-04.0	S. Laurel Beach	6/10/02	2	dry		
084-04.0	S. Laurel Beach	10/1/02	2	dry		
084-04.0	S. Laurel Beach	10/15/02	9	wet		
084-04.0	S. Laurel Beach	4/28/03	2	wet	3	NA
084-04.0	S. Laurel Beach	6/9/03	2	wet		
084-04.0	S. Laurel Beach	8/5/03	2	wet		
084-04.0	S. Laurel Beach	8/11/03	2	wet		
084-04.0	S. Laurel Beach	12/19/03	28	wet		
084-04.0	S. Laurel Beach	4/26/04	50	wet	4* (NA)	10
084-04.0	S. Laurel Beach	7/15/04	6	wet		
084-04.0	S. Laurel Beach	8/6/04	2	wet		
084-04.0	S. Laurel Beach	8/25/04	2	dry		
084-04.0	S. Laurel Beach	9/21/04	2	wet		
084-04.0	S. Laurel Beach	3/30/05	1	wet	2	NA
084-04.0	S. Laurel Beach	4/5/05	1	wet		
084-04.0	S. Laurel Beach	5/31/05	1	wet		
084-04.0	S. Laurel Beach	10/24/05	8	wet		
084-04.0	S. Laurel Beach	10/27/05	1	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 3: LIS CB Shore – Walnut Beach (CT-C2_023) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-04.0	S. Laurel Beach	4/6/06	1	wet	3	NA
084-04.0	S. Laurel Beach	4/27/06	2	wet		
084-04.0	S. Laurel Beach	5/18/06	1	wet		
084-04.0	S. Laurel Beach	6/8/06	14	wet		
084-04.0	S. Laurel Beach	6/20/06	1	wet		
084-04.0	S. Laurel Beach	7/20/06	1	wet		
084-04.0	S. Laurel Beach	8/29/06	25	wet		
084-04.0	S. Laurel Beach	8/30/06	4	wet		
084-04.0	S. Laurel Beach	8/31/06	6	wet		
084-04.0	S. Laurel Beach	11/27/06	1	dry		
084-04.0	S. Laurel Beach	12/27/06	2	dry		
084-04.0	S. Laurel Beach	1/4/07	1	wet	1	NA
084-04.0	S. Laurel Beach	6/6/07	1	wet		
084-04.0	S. Laurel Beach	7/24/07	3	wet		
084-04.0	S. Laurel Beach	9/12/07	1	wet		
084-04.0	S. Laurel Beach	10/24/07	1	dry		
084-04.0	S. Laurel Beach	10/31/07	1	dry		
084-04.0	S. Laurel Beach	12/3/07	5	wet		
084-04.0	S. Laurel Beach	2/5/08	5	dry	2	NA
084-04.0	S. Laurel Beach	2/14/08	2	wet		
084-04.0	S. Laurel Beach	3/11/08	1	wet		
084-04.0	S. Laurel Beach	4/9/08	1	dry		
084-04.0	S. Laurel Beach	5/1/08	1	wet		
084-04.0	S. Laurel Beach	6/9/08	1	wet		
084-04.0	S. Laurel Beach	7/28/08	1	dry		
084-04.0	S. Laurel Beach	9/11/08	1	wet		
084-04.0	S. Laurel Beach	12/16/08	8	wet		
084-04.0	S. Laurel Beach	12/26/08	1	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 3: LIS CB Shore – Walnut Beach (CT-C2_023) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-04.0	S. Laurel Beach	4/1/09	1	dry	3	1
084-04.0	S. Laurel Beach	6/11/09	63	wet		
084-04.0	S. Laurel Beach	6/15/09	4	dry		
084-04.0	S. Laurel Beach	6/19/09	21	wet		
084-04.0	S. Laurel Beach	6/22/09	1	dry		
084-04.0	S. Laurel Beach	7/27/09	1	dry		
084-04.0	S. Laurel Beach	9/1/09	1	dry		
084-04.0	S. Laurel Beach	9/30/09	1	dry		
084-04.0	S. Laurel Beach	10/26/09	1	wet		
084-04.0	S. Laurel Beach	3/2/10	1	wet	2	NA
084-04.0	S. Laurel Beach	3/18/10	1	wet		
084-04.0	S. Laurel Beach	3/25/10	1	wet		
084-04.0	S. Laurel Beach	4/26/10	1	wet		
084-04.0	S. Laurel Beach	5/20/10	14	wet		
084-04.0	S. Laurel Beach	6/9/10	1	dry		
084-04.0	S. Laurel Beach	8/25/10	21	wet		
084-04.0	S. Laurel Beach	10/5/10	2	dry		
084-04.0	S. Laurel Beach	3/14/11	1	dry	1	NA
084-04.0	S. Laurel Beach	4/18/11	1	wet		
084-04.0	S. Laurel Beach	4/27/11	1	dry		
084-04.0	S. Laurel Beach	5/22/11	3	wet		
084-04.0	S. Laurel Beach	6/27/11	1	dry		

Shaded cells indicate an exceedance of water quality criteria

† Average of two duplicate samples

** Weather conditions for selected data taken from Hartford because local station had missing data

*Indicates geometric mean and 90% less than values used to calculate the percent reduction

Wet and dry weather fecal coliform (colonies/100 mL) geometric mean values for all monitoring stations on Segment 3: LIS CB Shore – Walnut Beach (CT-C2_023)

Station Name	Station Location	Years Sampled	Number of Samples		Geometric Mean		
			Wet	Dry	All	Wet	Dry
084-04.0	S. Laurel Beach	2000-2011	63	26	2	3	1
Shaded cells indicate an exceedance of water quality criteria							

Table 17: Segment 4: LIS CB Midshore – Milford Bacteria Data**Waterbody ID:** CT-C3_017

Characteristics: Saltwater, Class SA, Shellfishing Harvesting for Direct Human Consumption, Recreation, Habitat for Marine Fish and other Aquatic Life and Wildlife, Industrial Water Supply, and Navigation

Impairment: Shellfish Harvesting (*fecal coliform bacteria*)

Water Quality Criteria for fecal coliform:

Geometric Mean: 14 colonies/100 mL

90% of samples less than: 31 colonies/100 mL

Percent Reduction to meet TMDL:

Geometric Mean: NA

90% of samples less than: 17%

Data: 2000 – 2011 from CT DEEP targeted sampling efforts, 2012 TMDL Cycle

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-13.0	S. Pond Pt. N"12"	1/6/00	2	wet	3	NA
084-13.0	S. Pond Pt. N"12"	4/26/00	2	wet		
084-13.0	S. Pond Pt. N"12"	5/17/00	2	dry		
084-13.0	S. Pond Pt. N"12"	6/8/00	8	wet		
084-13.0	S. Pond Pt. N"12"	6/15/00	18	dry		
084-13.0	S. Pond Pt. N"12"	7/19/00	2	wet		
084-13.0	S. Pond Pt. N"12"	8/4/00	11	dry		
084-13.0	S. Pond Pt. N"12"	8/8/00	2	wet		
084-13.0	S. Pond Pt. N"12"	8/9/00	2	wet		
084-13.0	S. Pond Pt. N"12"	8/10/00	2	dry		
084-13.0	S. Pond Pt. N"12"	8/15/00	4	wet		
084-13.0	S. Pond Pt. N"12"	8/16/00	2	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-13.0	S. Pond Pt. N"12"	3/15/01	2	wet	4	3
084-13.0	S. Pond Pt. N"12"	4/3/01	2	wet		
084-13.0	S. Pond Pt. N"12"	6/5/01	2	dry		
084-13.0	S. Pond Pt. N"12"	6/18/01	36	wet		
084-13.0	S. Pond Pt. N"12"	6/19/01	4	wet		
084-13.0	S. Pond Pt. N"12"	8/13/01	22	wet		
084-13.0	S. Pond Pt. N"12"	8/16/01	2	dry		
084-13.0	S. Pond Pt. N"12"	9/18/01	2	dry		
084-13.0	S. Pond Pt. N"12"	3/21/02	2	wet	2	NA
084-13.0	S. Pond Pt. N"12"	5/6/02	2	dry		
084-13.0	S. Pond Pt. N"12"	5/16/02	2	wet		
084-13.0	S. Pond Pt. N"12"	6/10/02	2	dry		
084-13.0	S. Pond Pt. N"12"	6/18/02	4	dry		
084-13.0	S. Pond Pt. N"12"	10/1/02	2	dry		
084-13.0	S. Pond Pt. N"12"	10/15/02	2	wet		
084-13.0	S. Pond Pt. N"12"	10/29/02	2	dry		
084-13.0	S. Pond Pt. N"12"	4/14/03	2	wet	3	NA
084-13.0	S. Pond Pt. N"12"	4/28/03	2	wet		
084-13.0	S. Pond Pt. N"12"	6/10/03	4	dry		
084-13.0	S. Pond Pt. N"12"	8/6/03	8	wet		
084-13.0	S. Pond Pt. N"12"	8/12/03	4	wet		
084-13.0	S. Pond Pt. N"12"	10/1/03	2	wet		
084-13.0	S. Pond Pt. N"12"	4/26/04	2	wet	4	15
084-13.0	S. Pond Pt. N"12"	8/18/04	2	wet		
084-13.0	S. Pond Pt. N"12"	8/25/04	2	dry		
084-13.0	S. Pond Pt. N"12"	9/20/04	36	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-13.0	S. Pond Pt. N"12"	3/30/05	1	wet	2	NA
084-13.0	S. Pond Pt. N"12"	4/5/05	1	wet		
084-13.0	S. Pond Pt. N"12"	5/4/05	1	dry		
084-13.0	S. Pond Pt. N"12"	5/5/05	1	dry		
084-13.0	S. Pond Pt. N"12"	5/31/05	1	wet		
084-13.0	S. Pond Pt. N"12"	10/17/05	10	wet		
084-13.0	S. Pond Pt. N"12"	10/24/05	5	wet		
084-13.0	S. Pond Pt. N"12"	10/27/05	6	wet		
084-13.0	S. Pond Pt. N"12"	4/6/06	1	wet	4	NA
084-13.0	S. Pond Pt. N"12"	4/27/06	1	wet		
084-13.0	S. Pond Pt. N"12"	5/18/06	1	wet		
084-13.0	S. Pond Pt. N"12"	6/8/06	20	wet		
084-13.0	S. Pond Pt. N"12"	7/20/06	3	wet		
084-13.0	S. Pond Pt. N"12"	7/31/06	1	wet		
084-13.0	S. Pond Pt. N"12"	8/29/06	13	wet		
084-13.0	S. Pond Pt. N"12"	8/30/06	17	wet		
084-13.0	S. Pond Pt. N"12"	8/31/06	15	wet		
084-13.0	S. Pond Pt. N"12"	11/27/06	2	dry		
084-13.0	S. Pond Pt. N"12"	12/27/06	8	dry		
084-13.0	S. Pond Pt. N"12"	1/4/07	2	wet	2	NA
084-13.0	S. Pond Pt. N"12"	6/6/07	1	wet		
084-13.0	S. Pond Pt. N"12"	7/24/07	2	wet		
084-13.0	S. Pond Pt. N"12"	9/12/07	4	wet		
084-13.0	S. Pond Pt. N"12"	10/24/07	1	dry		
084-13.0	S. Pond Pt. N"12"	10/31/07	1	dry		
084-13.0	S. Pond Pt. N"12"	12/3/07	3	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-13.0	S. Pond Pt. N"12"	2/5/08	2	dry	2	NA
084-13.0	S. Pond Pt. N"12"	2/14/08	2	wet		
084-13.0	S. Pond Pt. N"12"	3/11/08	1	wet		
084-13.0	S. Pond Pt. N"12"	4/9/08	1	dry		
084-13.0	S. Pond Pt. N"12"	5/1/08	1	wet		
084-13.0	S. Pond Pt. N"12"	6/9/08	1	wet		
084-13.0	S. Pond Pt. N"12"	7/28/08	10	dry		
084-13.0	S. Pond Pt. N"12"	9/11/08	1	wet		
084-13.0	S. Pond Pt. N"12"	12/16/08	1	wet		
084-13.0	S. Pond Pt. N"12"	4/1/09	1	dry	4	NA
084-13.0	S. Pond Pt. N"12"	6/11/09	14	wet		
084-13.0	S. Pond Pt. N"12"	6/12/09	18	dry		
084-13.0	S. Pond Pt. N"12"	6/15/09	31	dry		
084-13.0	S. Pond Pt. N"12"	6/19/09	21	wet		
084-13.0	S. Pond Pt. N"12"	6/22/09	4	dry		
084-13.0	S. Pond Pt. N"12"	6/29/09	5	wet		
084-13.0	S. Pond Pt. N"12"	7/27/09	1	dry		
084-13.0	S. Pond Pt. N"12"	9/1/09	1	dry		
084-13.0	S. Pond Pt. N"12"	9/30/09	1	dry		
084-13.0	S. Pond Pt. N"12"	10/26/09	2	wet		
084-13.0	S. Pond Pt. N"12"	3/2/10	1	wet	2	NA
084-13.0	S. Pond Pt. N"12"	3/17/10	6	wet		
084-13.0	S. Pond Pt. N"12"	3/18/10	1	wet		
084-13.0	S. Pond Pt. N"12"	3/25/10	1	wet		
084-13.0	S. Pond Pt. N"12"	4/26/10	1	wet		
084-13.0	S. Pond Pt. N"12"	5/20/10	6	wet		
084-13.0	S. Pond Pt. N"12"	6/9/10	1	dry		
084-13.0	S. Pond Pt. N"12"	8/25/10	7	wet		
084-13.0	S. Pond Pt. N"12"	10/5/10	1	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-13.0	S. Pond Pt. N"12"	3/14/11	1	dry	2	NA
084-13.0	S. Pond Pt. N"12"	4/18/11	2	wet		
084-13.0	S. Pond Pt. N"12"	4/27/11	1	dry		
084-13.0	S. Pond Pt. N"12"	5/22/11	7	wet		
084-13.0	S. Pond Pt. N"12"	6/27/11	1	dry		
084-13.1	SE N"12"	1/6/00	2	wet	3	NA
084-13.1	SE N"12"	4/26/00	2	wet		
084-13.1	SE N"12"	5/17/00	2	dry		
084-13.1	SE N"12"	6/8/00	6	wet		
084-13.1	SE N"12"	6/15/00	18	dry		
084-13.1	SE N"12"	7/19/00	2	wet		
084-13.1	SE N"12"	8/4/00	8	dry		
084-13.1	SE N"12"	8/8/00	2	wet		
084-13.1	SE N"12"	8/9/00	2	wet		
084-13.1	SE N"12"	8/10/00	2	dry		
084-13.1	SE N"12"	8/15/00	2	wet		
084-13.1	SE N"12"	8/16/00	2	wet		
084-13.1	SE N"12"	3/15/01	2	wet	3	3
084-13.1	SE N"12"	4/3/01	2	wet		
084-13.1	SE N"12"	6/5/01	2	dry		
084-13.1	SE N"12"	6/19/01	2	wet		
084-13.1	SE N"12"	8/13/01	51	wet		
084-13.1	SE N"12"	8/16/01	2	dry		
084-13.1	SE N"12"	9/18/01	2	dry		
084-13.1	SE N"12"	10/2/01	6	wet		

**Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS
CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples**

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-13.1	SE N"12"	3/21/02	2	wet	2	NA
084-13.1	SE N"12"	5/6/02	2	dry		
084-13.1	SE N"12"	5/16/02	2	wet		
084-13.1	SE N"12"	6/10/02	2	dry		
084-13.1	SE N"12"	6/18/02	2	dry		
084-13.1	SE N"12"	10/1/02	2	dry		
084-13.1	SE N"12"	10/15/02	4	wet		
084-13.1	SE N"12"	10/29/02	4	dry		
084-13.1	SE N"12"	4/14/03	2	wet	2	NA
084-13.1	SE N"12"	4/28/03	2	wet		
084-13.1	SE N"12"	6/10/03	2	dry		
084-13.1	SE N"12"	8/6/03	4	wet		
084-13.1	SE N"12"	8/12/03	2	wet		
084-13.1	SE N"12"	10/1/03	6	wet		
084-13.1	SE N"12"	4/26/04	2	wet	4	15
084-13.1	SE N"12"	8/18/04	2	wet		
084-13.1	SE N"12"	8/25/04	2	dry		
084-13.1	SE N"12"	9/20/04	51	wet		
084-13.1	SE N"12"	3/30/05	1	wet	2	NA
084-13.1	SE N"12"	4/5/05	1	wet		
084-13.1	SE N"12"	5/31/05	1	wet		
084-13.1	SE N"12"	10/17/05	30	wet		
084-13.1	SE N"12"	10/24/05	1	wet		
084-13.1	SE N"12"	10/27/05	5	wet		

**Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS
CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples**

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-13.1	SE N"12"	4/6/06	1	wet	4	NA
084-13.1	SE N"12"	4/27/06	1	wet		
084-13.1	SE N"12"	5/18/06	2	wet		
084-13.1	SE N"12"	6/8/06	38	wet		
084-13.1	SE N"12"	7/20/06	3	wet		
084-13.1	SE N"12"	7/31/06	1	wet		
084-13.1	SE N"12"	8/29/06	19	wet		
084-13.1	SE N"12"	8/30/06	15	wet		
084-13.1	SE N"12"	8/31/06	6	wet		
084-13.1	SE N"12"	11/27/06	2	dry		
084-13.1	SE N"12"	12/27/06	4	dry		
084-13.1	SE N"12"	1/4/07	3	wet	2	NA
084-13.1	SE N"12"	6/6/07	6	wet		
084-13.1	SE N"12"	7/24/07	1	wet		
084-13.1	SE N"12"	9/12/07	3	wet		
084-13.1	SE N"12"	10/24/07	1	dry		
084-13.1	SE N"12"	10/31/07	1	dry		
084-13.1	SE N"12"	12/3/07	1	wet		
084-13.1	SE N"12"	2/5/08	4	dry	2	NA
084-13.1	SE N"12"	2/14/08	6	wet		
084-13.1	SE N"12"	3/11/08	1	wet		
084-13.1	SE N"12"	4/9/08	1	dry		
084-13.1	SE N"12"	5/1/08	1	wet		
084-13.1	SE N"12"	6/9/08	1	wet		
084-13.1	SE N"12"	7/28/08	22	dry		
084-13.1	SE N"12"	9/11/08	1	wet		
084-13.1	SE N"12"	12/16/08	3	wet		

**Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS
CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples**

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-13.1	SE N"12"	4/1/09	1	dry	5* (NA)	17
084-13.1	SE N"12"	6/11/09	7	wet		
084-13.1	SE N"12"	6/12/09	36	dry		
084-13.1	SE N"12"	6/15/09	36	dry		
084-13.1	SE N"12"	6/19/09	81	wet		
084-13.1	SE N"12"	6/22/09	4	dry		
084-13.1	SE N"12"	6/29/09	1	wet		
084-13.1	SE N"12"	7/27/09	1	dry		
084-13.1	SE N"12"	9/1/09	1	dry		
084-13.1	SE N"12"	9/30/09	3	dry		
084-13.1	SE N"12"	10/26/09	10	wet		
084-13.1	SE N"12"	3/2/10	1	wet	2	NA
084-13.1	SE N"12"	3/18/10	1	wet		
084-13.1	SE N"12"	3/25/10	4	wet		
084-13.1	SE N"12"	4/26/10	1	wet		
084-13.1	SE N"12"	5/20/10	27	wet		
084-13.1	SE N"12"	6/9/10	1	dry		
084-13.1	SE N"12"	8/25/10	4	wet		
084-13.1	SE N"12"	3/14/11	1	dry	1	NA
084-13.1	SE N"12"	4/18/11	4	wet		
084-13.1	SE N"12"	4/27/11	1	dry		
084-13.1	SE N"12"	5/22/11	1	wet		
084-13.1	SE N"12"	6/27/11	1	dry		

**Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS
CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples**

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-16.0	S. Merwin Pt. Offshore	1/6/00	14	wet	4	NA
084-16.0	S. Merwin Pt. Offshore	5/17/00	2	dry		
084-16.0	S. Merwin Pt. Offshore	6/8/00	11	wet		
084-16.0	S. Merwin Pt. Offshore	6/15/00	18	dry		
084-16.0	S. Merwin Pt. Offshore	7/19/00	4	wet		
084-16.0	S. Merwin Pt. Offshore	8/4/00	8	dry		
084-16.0	S. Merwin Pt. Offshore	8/8/00	2	wet		
084-16.0	S. Merwin Pt. Offshore	8/9/00	2	wet		
084-16.0	S. Merwin Pt. Offshore	8/10/00	2	dry		
084-16.0	S. Merwin Pt. Offshore	8/15/00	2	wet		
084-16.0	S. Merwin Pt. Offshore	8/16/00	2	wet		
084-16.0	S. Merwin Pt. Offshore	3/15/01	2	wet	4	12
084-16.0	S. Merwin Pt. Offshore	4/3/01	2	wet		
084-16.0	S. Merwin Pt. Offshore	6/5/01	2	dry		
084-16.0	S. Merwin Pt. Offshore	6/18/01	36	wet		
084-16.0	S. Merwin Pt. Offshore	6/19/01	11	wet		
084-16.0	S. Merwin Pt. Offshore	8/13/01	51	wet		
084-16.0	S. Merwin Pt. Offshore	8/16/01	2	dry		
084-16.0	S. Merwin Pt. Offshore	9/18/01	2	dry		
084-16.0	S. Merwin Pt. Offshore	10/2/01	2	wet		
084-16.0	S. Merwin Pt. Offshore	3/21/02	4	wet	2	NA
084-16.0	S. Merwin Pt. Offshore	5/6/02	2	dry		
084-16.0	S. Merwin Pt. Offshore	5/16/02	4	wet		
084-16.0	S. Merwin Pt. Offshore	6/10/02	2	dry		
084-16.0	S. Merwin Pt. Offshore	6/18/02	2	dry		
084-16.0	S. Merwin Pt. Offshore	10/1/02	2	dry		
084-16.0	S. Merwin Pt. Offshore	10/15/02	4	wet		
084-16.0	S. Merwin Pt. Offshore	10/29/02	2	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-16.0	S. Merwin Pt. Offshore	4/14/03	2	wet	2	NA
084-16.0	S. Merwin Pt. Offshore	4/28/03	2	wet		
084-16.0	S. Merwin Pt. Offshore	6/10/03	2	dry		
084-16.0	S. Merwin Pt. Offshore	8/6/03	4	wet		
084-16.0	S. Merwin Pt. Offshore	8/12/03	2	wet		
084-16.0	S. Merwin Pt. Offshore	10/1/03	6	wet		
084-16.0	S. Merwin Pt. Offshore	4/26/04	2	wet	4	15
084-16.0	S. Merwin Pt. Offshore	8/18/04	2	wet		
084-16.0	S. Merwin Pt. Offshore	8/25/04	2	dry		
084-16.0	S. Merwin Pt. Offshore	9/20/04	36	wet		
084-16.0	S. Merwin Pt. Offshore	3/30/05	1	wet	2	NA
084-16.0	S. Merwin Pt. Offshore	4/5/05	1	wet		
084-16.0	S. Merwin Pt. Offshore	5/4/05	1	dry		
084-16.0	S. Merwin Pt. Offshore	5/5/05	1	dry		
084-16.0	S. Merwin Pt. Offshore	5/31/05	1	wet		
084-16.0	S. Merwin Pt. Offshore	10/19/05	4	wet		
084-16.0	S. Merwin Pt. Offshore	10/27/05	9	wet		
084-16.0	S. Merwin Pt. Offshore	4/6/06	1	wet	3	NA
084-16.0	S. Merwin Pt. Offshore	4/27/06	1	wet		
084-16.0	S. Merwin Pt. Offshore	5/18/06	4	wet		
084-16.0	S. Merwin Pt. Offshore	6/8/06	38	wet		
084-16.0	S. Merwin Pt. Offshore	7/20/06	1	wet		
084-16.0	S. Merwin Pt. Offshore	7/31/06	1	wet		
084-16.0	S. Merwin Pt. Offshore	8/29/06	21	wet		
084-16.0	S. Merwin Pt. Offshore	8/30/06	9	wet		
084-16.0	S. Merwin Pt. Offshore	8/31/06	17	wet		
084-16.0	S. Merwin Pt. Offshore	11/27/06	1	dry		
084-16.0	S. Merwin Pt. Offshore	12/27/06	1	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-16.0	S. Merwin Pt. Offshore	1/4/07	1	wet	2	NA
084-16.0	S. Merwin Pt. Offshore	6/6/07	4	wet		
084-16.0	S. Merwin Pt. Offshore	7/24/07	3	wet		
084-16.0	S. Merwin Pt. Offshore	9/12/07	2	wet		
084-16.0	S. Merwin Pt. Offshore	10/24/07	1	dry		
084-16.0	S. Merwin Pt. Offshore	10/30/07	1	wet		
084-16.0	S. Merwin Pt. Offshore	12/3/07	8	wet		
084-16.0	S. Merwin Pt. Offshore	2/5/08	2	dry	2	NA
084-16.0	S. Merwin Pt. Offshore	2/14/08	1	wet		
084-16.0	S. Merwin Pt. Offshore	3/11/08	1	wet		
084-16.0	S. Merwin Pt. Offshore	4/9/08	1	dry		
084-16.0	S. Merwin Pt. Offshore	5/1/08	1	wet		
084-16.0	S. Merwin Pt. Offshore	6/9/08	5	wet		
084-16.0	S. Merwin Pt. Offshore	7/28/08	2	dry		
084-16.0	S. Merwin Pt. Offshore	9/11/08	5	wet		
084-16.0	S. Merwin Pt. Offshore	12/16/08	2	wet		
084-16.0	S. Merwin Pt. Offshore	4/1/09	1	dry	4	NA
084-16.0	S. Merwin Pt. Offshore	6/11/09	8	wet		
084-16.0	S. Merwin Pt. Offshore	6/12/09	19	dry		
084-16.0	S. Merwin Pt. Offshore	6/15/09	23	dry		
084-16.0	S. Merwin Pt. Offshore	6/19/09	41	wet		
084-16.0	S. Merwin Pt. Offshore	6/22/09	9	dry		
084-16.0	S. Merwin Pt. Offshore	6/29/09	1	wet		
084-16.0	S. Merwin Pt. Offshore	7/27/09	1	dry		
084-16.0	S. Merwin Pt. Offshore	9/1/09	1	dry		
084-16.0	S. Merwin Pt. Offshore	9/30/09	2	dry		
084-16.0	S. Merwin Pt. Offshore	10/26/09	1	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-16.0	S. Merwin Pt. Offshore	3/2/10	1	wet	2	3
084-16.0	S. Merwin Pt. Offshore	3/18/10	1	wet		
084-16.0	S. Merwin Pt. Offshore	3/25/10	1	wet		
084-16.0	S. Merwin Pt. Offshore	4/26/10	1	wet		
084-16.0	S. Merwin Pt. Offshore	5/20/10	80	wet		
084-16.0	S. Merwin Pt. Offshore	6/9/10	1	dry		
084-16.0	S. Merwin Pt. Offshore	8/25/10	6	wet		
084-16.0	S. Merwin Pt. Offshore	10/18/10	1	dry		
084-16.0	S. Merwin Pt. Offshore	3/14/11	1	dry	1	NA
084-16.0	S. Merwin Pt. Offshore	4/18/11	1	wet		
084-16.0	S. Merwin Pt. Offshore	4/27/11	1	dry		
084-16.0	S. Merwin Pt. Offshore	5/22/11	2	wet		
084-16.0	S. Merwin Pt. Offshore	6/27/11	1	dry		
156-06.0	Long Island Sound	5/17/00	2	dry	2	NA
156-06.0	Long Island Sound	6/13/00	14	wet		
156-06.0	Long Island Sound	6/15/00	2	dry		
156-06.0	Long Island Sound	7/18/00	2	wet		
156-06.0	Long Island Sound	9/7/00	2	dry		
156-06.0	Long Island Sound	7/9/01	2	dry	2	NA
156-06.0	Long Island Sound	8/1/01	2	dry		
156-06.0	Long Island Sound	8/13/01	2	wet		
156-06.0	Long Island Sound	9/18/01	2	dry		
156-06.0	Long Island Sound	10/2/01	4	wet		
156-06.0	Long Island Sound	1/25/02	2	wet	3	NA
156-06.0	Long Island Sound	1/28/02	2	dry		
156-06.0	Long Island Sound	5/6/02	2	dry		
156-06.0	Long Island Sound	5/16/02	8	wet		
156-06.0	Long Island Sound	10/15/02	8	wet		
156-06.0	Long Island Sound	10/29/02	2	dry		
156-06.0	Long Island Sound	11/13/02	6	wet		
156-06.0	Long Island Sound	12/18/02	2	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
156-06.0	Long Island Sound	4/14/03	2	wet	2	NA
156-06.0	Long Island Sound	4/26/03	2	wet		
156-06.0	Long Island Sound	4/28/03	2	wet		
156-06.0	Long Island Sound	6/10/03	2	dry		
156-06.0	Long Island Sound	8/6/03	2	wet		
156-06.0	Long Island Sound	8/12/03	2	wet		
156-06.0	Long Island Sound	8/21/03	2	dry		
156-06.0	Long Island Sound	10/1/03	6	dry		
156-06.0	Long Island Sound	8/18/04	2	wet	4	NA
156-06.0	Long Island Sound	8/25/04	2	dry		
156-06.0	Long Island Sound	9/20/04	22	wet		
156-06.0	Long Island Sound	1/11/05	8	dry	1	NA
156-06.0	Long Island Sound	3/31/05	1	wet		
156-06.0	Long Island Sound	4/6/05	1	dry		
156-06.0	Long Island Sound	5/4/05	1	dry		
156-06.0	Long Island Sound	5/5/05	1	dry		
156-06.0	Long Island Sound	5/31/05	1	wet		
156-06.0	Long Island Sound	10/19/05	1	wet		
156-06.0	Long Island Sound	12/12/05	1	dry		
156-06.0	Long Island Sound	1/24/06	3	wet	1	NA
156-06.0	Long Island Sound	4/6/06	1	wet		
156-06.0	Long Island Sound	7/31/06	1	wet		
156-06.0	Long Island Sound	8/2/06	1	dry		
156-06.0	Long Island Sound	8/16/06	1	wet		
156-06.0	Long Island Sound	10/16/06	1	wet		
156-06.0	Long Island Sound	1/11/07	1	dry	1	NA
156-06.0	Long Island Sound	6/7/07	4	dry		
156-06.0	Long Island Sound	8/23/07	1	wet		
156-06.0	Long Island Sound	9/12/07	1	wet		
156-06.0	Long Island Sound	10/22/07	1	wet		
156-06.0	Long Island Sound	10/30/07	1	dry		
156-06.0	Long Island Sound	11/29/07	1	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
156-06.0	Long Island Sound	1/15/08	6	dry	3	NA
156-06.0	Long Island Sound	2/21/08	20	wet		
156-06.0	Long Island Sound	3/12/08	4	dry		
156-06.0	Long Island Sound	4/9/08	1	dry		
156-06.0	Long Island Sound	5/14/08	1	dry		
156-06.0	Long Island Sound	6/5/08	4	wet		
156-06.0	Long Island Sound	7/28/08	1	dry		
156-06.0	Long Island Sound	9/11/08	3	wet		
156-06.0	Long Island Sound	12/16/08	13	wet		
156-06.0	Long Island Sound	12/23/08	1	wet		
156-06.0	Long Island Sound	4/1/09	1	dry	3	NA
156-06.0	Long Island Sound	5/12/09	1	dry		
156-06.0	Long Island Sound	6/10/09	41	wet		
156-06.0	Long Island Sound	6/12/09	21	dry		
156-06.0	Long Island Sound	6/15/09	3	dry		
156-06.0	Long Island Sound	6/29/09	3	wet		
156-06.0	Long Island Sound	7/23/09	1	wet		
156-06.0	Long Island Sound	7/27/09	2	dry		
156-06.0	Long Island Sound	9/1/09	1	dry		
156-06.0	Long Island Sound	9/30/09	1	dry		
156-06.0	Long Island Sound	10/29/09	1	wet		
156-06.0	Long Island Sound	12/14/09	9	wet		
156-06.0	Long Island Sound	3/25/10	1	wet	1	NA
156-06.0	Long Island Sound	4/26/10	1	wet		
156-06.0	Long Island Sound	5/19/10	3	wet		
156-06.0	Long Island Sound	7/21/10	1	wet		
156-06.0	Long Island Sound	8/25/10	1	wet		
156-06.0	Long Island Sound	10/6/10	2	dry		
156-06.0	Long Island Sound	10/18/10	1	dry		
156-06.0	Long Island Sound	11/18/10	1	wet		
156-06.0	Long Island Sound	12/2/10	1	wet		
156-06.0	Long Island Sound	12/15/10	3	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
156-06.0	Long Island Sound	3/15/11	1	dry	2	NA
156-06.0	Long Island Sound	4/18/11	1	wet		
156-06.0	Long Island Sound	5/24/11	4	wet		
156-06.0	Long Island Sound	6/13/11	3	wet		
156-06.0	Long Island Sound	6/21/11	1	dry		
156-06.0	Long Island Sound	6/28/11	1	dry		

Shaded cells indicate an exceedance of water quality criteria

†Average of two duplicate samples

**** Weather conditions for selected data taken from Hartford because local station had missing data**

***Indicates geometric mean and 90% less than values used to calculate the percent reduction**

Wet and dry weather geometric mean values for all monitoring stations on Segment 4: LIS CB Midshore – Milford (CT-C3_017)

Station Name	Station Location	Years Sampled	Number of Samples		Geometric Mean		
			Wet	Dry	All	Wet	Dry
084-13.0	S. Pond Pt. N"12"	2000-2011	63	35	3	3	2
084-13.1	SE N"12"	2000-2011	62	32	3	3	2
084-16.0	S. Merwin Pt. Offshore	2000-2011	62	34	3	3	2
156-06.0	Long Island Sound	2000-2011	48	40	2	2	2

Shaded cells indicate an exceedance of water quality criteria

Table 18: Segment 5: LIS CB Midshore – Outer Silver Sand Beach Bacteria Data**Waterbody ID:** CT-C3_019-I

Characteristics: Saltwater, Class SA, Shellfishing Harvesting for Direct Human Consumption, Recreation, Habitat for Marine Fish and other Aquatic Life and Wildlife, Industrial Water Supply, and Navigation

Impairment: Shellfish Harvesting (*fecal coliform bacteria*)

Water Quality Criteria for fecal coliform:

Geometric Mean: 14 colonies/100 mL

90% of samples less than: 31 colonies/100 mL

Percent Reduction to meet TMDL:

Geometric Mean: NA

90% of samples less than: 50%

Data: 2000 - 2011 from CT DEEP targeted sampling efforts, 2012 TMDL Cycle

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-07.2	NE Charles Island	5/16/00	2	dry	9	3
084-07.2	NE Charles Island	6/13/00	50	wet		
084-07.2	NE Charles Island	6/15/00	14	dry		
084-07.2	NE Charles Island	6/20/00	18	wet		
084-07.2	NE Charles Island	7/18/00	22	wet		
084-07.2	NE Charles Island	9/7/00	2	dry		
084-07.2	NE Charles Island	9/8/00	2	dry		
084-07.2	NE Charles Island	9/19/00	28	dry		
084-07.2	NE Charles Island	4/3/01	2	wet	3	NA
084-07.2	NE Charles Island	6/5/01	2	dry		
084-07.2	NE Charles Island	7/30/01	8	dry		
084-07.2	NE Charles Island	1/25/02	8	wet	2	NA
084-07.2	NE Charles Island	1/28/02	2	dry		
084-07.2	NE Charles Island	3/21/02	4	wet		
084-07.2	NE Charles Island	5/6/02	2	dry		
084-07.2	NE Charles Island	6/18/02	2	dry		
084-07.2	NE Charles Island	10/29/02	2	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-07.2	NE Charles Island	6/10/03	2	dry	4	NA
084-07.2	NE Charles Island	8/12/03	2	wet		
084-07.2	NE Charles Island	8/21/03	4	dry		
084-07.2	NE Charles Island	9/30/03	28	wet		
084-07.2	NE Charles Island	12/18/03	6	wet		
084-07.2	NE Charles Island	3/25/04	14	dry	10	NA
084-07.2	NE Charles Island	4/26/04	11	wet		
084-07.2	NE Charles Island	11/29/04	6	wet		
084-07.2	NE Charles Island	1/11/05	1	dry	2	NA
084-07.2	NE Charles Island	5/31/05	1	wet		
084-07.2	NE Charles Island	10/17/05	10	wet		
084-07.2	NE Charles Island	12/12/05	3	dry		
084-07.2	NE Charles Island	4/6/06	2	wet	3	NA
084-07.2	NE Charles Island	4/27/06	11	wet		
084-07.2	NE Charles Island	5/18/06	8	wet		
084-07.2	NE Charles Island	7/31/06	1	wet		
084-07.2	NE Charles Island	10/16/06	1	wet		
084-07.2	NE Charles Island	7/24/07	3	wet	2	NA
084-07.2	NE Charles Island	10/24/07	1	dry		
084-07.2	NE Charles Island	10/31/07	3	dry		
084-07.2	NE Charles Island	12/3/07	1	wet		
084-07.2	NE Charles Island	12/5/07	1	wet		
084-07.2	NE Charles Island	12/27/07	9	wet		
084-07.2	NE Charles Island	1/15/08	1	dry	3	NA
084-07.2	NE Charles Island	2/5/08	4	dry		
084-07.2	NE Charles Island	2/21/08	1	wet		
084-07.2	NE Charles Island	3/13/08	2	dry		
084-07.2	NE Charles Island	4/30/08	3	wet		
084-07.2	NE Charles Island	6/9/08	2	wet		
084-07.2	NE Charles Island	7/28/08	14	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-07.2	NE Charles Island	4/1/09	1	dry	2	NA
084-07.2	NE Charles Island	4/7/09	1	wet		
084-07.2	NE Charles Island	4/14/09	1	dry		
084-07.2	NE Charles Island	7/27/09	1	dry		
084-07.2	NE Charles Island	9/1/09	1	dry		
084-07.2	NE Charles Island	9/29/09	2	wet		
084-07.2	NE Charles Island	9/30/09	1	dry		
084-07.2	NE Charles Island	10/21/09	3	dry		
084-07.2	NE Charles Island	10/26/09	30	wet		
084-07.2	NE Charles Island	11/17/09	1	dry		
084-07.2	NE Charles Island	11/23/09	5	dry		
084-07.2	NE Charles Island	12/8/09	2	wet		
084-07.2	NE Charles Island	4/26/10	2	wet	4	7
084-07.2	NE Charles Island	5/4/10	2	wet		
084-07.2	NE Charles Island	5/19/10	81	wet		
084-07.2	NE Charles Island	9/20/10	4	dry		
084-07.2	NE Charles Island	10/5/10	6	dry		
084-07.2	NE Charles Island	12/15/10	1	wet		
084-07.2	NE Charles Island	3/14/11	1	dry	3	NA
084-07.2	NE Charles Island	4/18/11	9	wet		
084-07.2	NE Charles Island	4/27/11	1	dry		
084-07.2	NE Charles Island	5/23/11	11	wet		
084-07.2	NE Charles Island	6/21/11	5	dry		
084-07.2	NE Charles Island	6/27/11	1	dry		
084-07.3	NE side sandbar	4/3/01	2	wet	3	NA
084-07.3	NE side sandbar	6/5/01	2	dry		
084-07.3	NE side sandbar	7/30/01	11	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-07.3	NE side sandbar	1/25/02	14	wet	3	NA
084-07.3	NE side sandbar	1/28/02	2	dry		
084-07.3	NE side sandbar	3/21/02	2	wet		
084-07.3	NE side sandbar	5/6/02	2	dry		
084-07.3	NE side sandbar	6/18/02	2	dry		
084-07.3	NE side sandbar	10/29/02	11	dry		
084-07.3	NE side sandbar	6/10/03	4	dry	6	NA
084-07.3	NE side sandbar	8/12/03	4	wet		
084-07.3	NE side sandbar	8/21/03	8	dry		
084-07.3	NE side sandbar	9/30/03	28	wet		
084-07.3	NE side sandbar	12/18/03	4	wet		
084-07.3	NE side sandbar	3/25/04	2	dry	6	23
084-07.3	NE side sandbar	4/26/04	36	wet		
084-07.3	NE side sandbar	11/29/04	4	wet		
084-07.3	NE side sandbar	1/11/05	3	dry	3	NA
084-07.3	NE side sandbar	5/31/05	4	wet		
084-07.3	NE side sandbar	10/17/05	10	wet		
084-07.3	NE side sandbar	12/12/05	1	dry		
084-07.3	NE side sandbar	4/6/06	1	wet	2	NA
084-07.3	NE side sandbar	4/27/06	2	wet		
084-07.3	NE side sandbar	5/18/06	14	wet		
084-07.3	NE side sandbar	7/31/06	1	wet		
084-07.3	NE side sandbar	10/16/06	2	wet		
084-07.3	NE side sandbar	7/24/07	13	wet	11	7
084-07.3	NE side sandbar	10/24/07	12	dry		
084-07.3	NE side sandbar	10/31/07	5	dry		
084-07.3	NE side sandbar	12/3/07	23	wet		
084-07.3	NE side sandbar	12/5/07	3	wet		
084-07.3	NE side sandbar	12/27/07	40	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-07.3	NE side sandbar	1/15/08	1	dry	2	NA
084-07.3	NE side sandbar	2/5/08	6	dry		
084-07.3	NE side sandbar	2/21/08	1	wet		
084-07.3	NE side sandbar	3/13/08	1	dry		
084-07.3	NE side sandbar	4/30/08	1	wet		
084-07.3	NE side sandbar	6/9/08	30	wet		
084-07.3	NE side sandbar	7/28/08	1	dry		
084-07.3	NE side sandbar	4/1/09	1	dry	2	NA
084-07.3	NE side sandbar	4/7/09	2	wet		
084-07.3	NE side sandbar	4/14/09	1	dry		
084-07.3	NE side sandbar	7/27/09	2	dry		
084-07.3	NE side sandbar	9/1/09	1	dry		
084-07.3	NE side sandbar	9/29/09	1	wet		
084-07.3	NE side sandbar	9/30/09	1	dry		
084-07.3	NE side sandbar	10/21/09	2	dry		
084-07.3	NE side sandbar	10/26/09	30	wet		
084-07.3	NE side sandbar	11/17/09	1	dry		
084-07.3	NE side sandbar	11/23/09	8	dry		
084-07.3	NE side sandbar	12/8/09	1	wet		
084-07.3	NE side sandbar	4/26/10	3	wet	13	23
084-07.3	NE side sandbar	5/4/10	58	wet		
084-07.3	NE side sandbar	5/19/10	81	wet		
084-07.3	NE side sandbar	9/20/10	1	dry		
084-07.3	NE side sandbar	10/5/10	16	dry		
084-07.3	NE side sandbar	12/15/10	18	wet		
084-07.3	NE side sandbar	3/14/11	1	dry	4	NA
084-07.3	NE side sandbar	4/18/11	23	wet		
084-07.3	NE side sandbar	4/27/11	1	dry		
084-07.3	NE side sandbar	5/23/11	12	wet		
084-07.3	NE side sandbar	6/21/11	7	dry		
084-07.3	NE side sandbar	6/27/11	1	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-07.4	SE R"4"	4/3/01	2	wet	2	NA
084-07.4	SE R"4"	6/5/01	2	dry		
084-07.4	SE R"4"	7/30/01	2	dry		
084-07.4	SE R"4"	1/25/02	8	wet	4	NA
084-07.4	SE R"4"	1/28/02	2	dry		
084-07.4	SE R"4"	3/21/02	6	wet		
084-07.4	SE R"4"	5/6/02	2	dry		
084-07.4	SE R"4"	6/18/02	22	dry		
084-07.4	SE R"4"	10/29/02	2	dry		
084-07.4	SE R"4"	6/10/03	50	dry	14	50
084-07.4	SE R"4"	8/12/03	4	wet		
084-07.4	SE R"4"	8/21/03	36	dry		
084-07.4	SE R"4"	9/30/03	51	wet		
084-07.4	SE R"4"	12/18/03	2	wet		
084-07.4	SE R"4"	3/25/04	8	dry	21* (33%)	23
084-07.4	SE R"4"	4/26/04	22	wet		
084-07.4	SE R"4"	11/29/04	50	wet		
084-07.4	SE R"4"	1/11/05	1	dry	3	NA
084-07.4	SE R"4"	5/31/05	1	wet		
084-07.4	SE R"4"	10/17/05	9	wet		
084-07.4	SE R"4"	12/12/05	11	dry		
084-07.4	SE R"4"	4/6/06	1	wet	5	7
084-07.4	SE R"4"	4/27/06	4	wet		
084-07.4	SE R"4"	5/18/06	81	wet		
084-07.4	SE R"4"	6/20/06	19	wet		
084-07.4	SE R"4"	7/31/06	4	wet		
084-07.4	SE R"4"	10/16/06	1	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-07.4	SE R"4"	7/24/07	76	wet	15	23
084-07.4	SE R"4"	10/24/07	9	dry		
084-07.4	SE R"4"	10/31/07	3	dry		
084-07.4	SE R"4"	12/3/07	66	wet		
084-07.4	SE R"4"	12/5/07	2	wet		
084-07.4	SE R"4"	12/27/07	51	wet		
084-07.4	SE R"4"	1/15/08	1	dry	8	19
084-07.4	SE R"4"	2/5/08	10	dry		
084-07.4	SE R"4"	2/21/08	1	wet		
084-07.4	SE R"4"	3/13/08	1	dry		
084-07.4	SE R"4"	4/30/08	15	wet		
084-07.4	SE R"4"	6/9/08	171	wet		
084-07.4	SE R"4"	7/28/08	72	dry		
084-07.4	SE R"4"	4/1/09	1	dry	4	NA
084-07.4	SE R"4"	4/7/09	2	wet		
084-07.4	SE R"4"	4/14/09	2	dry		
084-07.4	SE R"4"	7/27/09	6	dry		
084-07.4	SE R"4"	9/1/09	1	dry		
084-07.4	SE R"4"	9/29/09	6	wet		
084-07.4	SE R"4"	9/30/09	7	dry		
084-07.4	SE R"4"	10/21/09	2	dry		
084-07.4	SE R"4"	10/26/09	171	wet		
084-07.4	SE R"4"	11/17/09	3	dry		
084-07.4	SE R"4"	11/23/09	25	dry		
084-07.4	SE R"4"	12/8/09	2	wet		
084-07.4	SE R"4"	4/26/10	1	wet	10	7
084-07.4	SE R"4"	5/4/10	81	wet		
084-07.4	SE R"4"	5/19/10	19	wet		
084-07.4	SE R"4"	9/20/10	1	dry		
084-07.4	SE R"4"	10/5/10	28	dry		
084-07.4	SE R"4"	12/15/10	27	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-07.4	SE R"4"	3/14/11	1	dry	7	NA
084-07.4	SE R"4"	4/18/11	24	wet		
084-07.4	SE R"4"	4/27/11	3	dry		
084-07.4	SE R"4"	5/23/11	5	wet		
084-07.4	SE R"4"	6/21/11	19	dry		
084-07.4	SE R"4"	6/27/11	23	dry		
084-08.1	S. channel	5/16/00	2	dry	9	3
084-08.1	S. channel	6/13/00	50	wet		
084-08.1	S. channel	6/15/00	28	dry		
084-08.1	S. channel	6/20/00	11	wet		
084-08.1	S. channel	7/18/00	28	wet		
084-08.1	S. channel	9/7/00	2	dry		
084-08.1	S. channel	9/8/00	2	dry		
084-08.1	S. channel	9/19/00	18	dry		
084-08.1	S. channel	4/3/01	2	wet	2	NA
084-08.1	S. channel	6/5/01	2	dry		
084-08.1	S. channel	7/30/01	2	dry		
084-08.1	S. channel	1/25/02	6	wet	3	NA
084-08.1	S. channel	1/28/02	2	dry		
084-08.1	S. channel	3/21/02	2	wet		
084-08.1	S. channel	5/6/02	6	dry		
084-08.1	S. channel	6/18/02	4	dry		
084-08.1	S. channel	10/29/02	6	dry		
084-08.1	S. channel	6/10/03	6	dry	7	NA
084-08.1	S. channel	8/12/03	4	wet		
084-08.1	S. channel	8/21/03	8	dry		
084-08.1	S. channel	9/30/03	36	wet		
084-08.1	S. channel	12/18/03	4	wet		
084-08.1	S. channel	3/25/04	2	dry	10	23
084-08.1	S. channel	4/26/04	50	wet		
084-08.1	S. channel	11/29/04	14	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-08.1	S. channel	1/11/05	1	dry	5	15
084-08.1	S. channel	5/31/05	1	wet		
084-08.1	S. channel	10/17/05	20	wet		
084-08.1	S. channel	12/12/05	35	dry		
084-08.1	S. channel	4/6/06	1	wet	3	10
084-08.1	S. channel	4/27/06	4	wet		
084-08.1	S. channel	5/18/06	31	wet		
084-08.1	S. channel	7/31/06	2	wet		
084-08.1	S. channel	10/16/06	1	wet		
084-08.1	S. channel	7/24/07	14	wet	7	7
084-08.1	S. channel	10/24/07	1	dry		
084-08.1	S. channel	10/31/07	2	dry		
084-08.1	S. channel	12/3/07	20	wet		
084-08.1	S. channel	12/5/07	5	wet		
084-08.1	S. channel	12/27/07	41	wet		
084-08.1	S. channel	1/15/08	2	dry	4	NA
084-08.1	S. channel	2/5/08	2	dry		
084-08.1	S. channel	2/20/08	1	wet		
084-08.1	S. channel	2/21/08	1	wet		
084-08.1	S. channel	3/13/08	3	dry		
084-08.1	S. channel	4/30/08	8	wet		
084-08.1	S. channel	6/9/08	21	wet		
084-08.1	S. channel	7/28/08	14	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-08.1	S. channel	4/1/09	1	dry	4	5
084-08.1	S. channel	4/7/09	1	wet		
084-08.1	S. channel	4/14/09	1	dry		
084-08.1	S. channel	6/19/09	171	wet		
084-08.1	S. channel	7/27/09	12	dry		
084-08.1	S. channel	9/1/09	1	dry		
084-08.1	S. channel	9/29/09	14	wet		
084-08.1	S. channel	9/30/09	2	dry		
084-08.1	S. channel	10/21/09	3	dry		
084-08.1	S. channel	10/26/09	62	wet		
084-08.1	S. channel	11/17/09	1	dry		
084-08.1	S. channel	11/23/09	10	dry		
084-08.1	S. channel	12/8/09	1	wet		
084-08.1	S. channel	4/26/10	10	wet	17	23
084-08.1	S. channel	5/4/10	69	wet		
084-08.1	S. channel	5/19/10	81	wet		
084-08.1	S. channel	9/20/10	1	dry		
084-08.1	S. channel	10/5/10	22	dry		
084-08.1	S. channel	12/15/10	17	wet		
084-08.1	S. channel	3/14/11	1	dry	5	10
084-08.1	S. channel	4/18/11	39	wet		
084-08.1	S. channel	4/27/11	3	dry		
084-08.1	S. channel	5/23/11	11	wet		
084-08.1	S. channel	6/21/11	9	dry		
084-08.1	S. channel	6/27/11	1	dry		

Shaded cells indicate an exceedance of water quality criteria

†Average of two duplicate samples

**** Weather conditions for selected data taken from Hartford because local station had missing data**

***Indicates geometric mean and 90% less than values used to calculate the percent reduction**

Wet and dry weather fecal coliform (colonies/100 mL) geometric mean values for all monitoring stations on Segment 5: LIS CB Midshore – Outer Silver Sand Beach (CT-C3_019-I)

Station Name	Station Location	Years Sampled	Number of Samples		Geometric Mean		
			Wet	Dry	All	Wet	Dry
084-07.2	NE Charles Island	2000-2011	35	36	3	4	2
084-07.3	NE side sandbar	2001-2011	32	31	4	6	2
084-07.4	SE R"4"	2001-2011	33	31	7	9	5
084-08.1	S. channel	2000-2011	37	36	5	9	3
Shaded cells indicate an exceedance of water quality criteria							

Table 19: Segment 6: LIS CB Midshore – Milford Point Bacteria Data**Waterbody ID:** CT-C3_020

Characteristics: Saltwater, Class SA, Shellfishing Harvesting for Direct Human Consumption, Recreation, Habitat for Marine Fish and other Aquatic Life and Wildlife, Industrial Water Supply, and Navigation

Impairment: Shellfish Harvesting (*fecal coliform bacteria*)

Water Quality Criteria for fecal coliform:

Geometric Mean: 14 colonies/100 mL

90% of samples less than: 31 colonies/100 mL

Percent Reduction to meet TMDL:

Geometric Mean: NA

90% of samples less than: 70%

Data: 2000 - 2011 from CT DEEP targeted sampling efforts, 2012 TMDL Cycle

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.0	SW Hous. River mouth/S. Lighthouse	1/6/00	6	wet	6	19
084-01.0	SW Hous. River mouth/S. Lighthouse	4/24/00	51	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	5/16/00	2	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	6/8/00	51	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	6/19/00	2	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	8/10/00	2	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	8/15/00	6	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	4/3/01	51	wet	14	40
084-01.0	SW Hous. River mouth/S. Lighthouse	8/13/01	51	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	9/18/01	8	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	10/3/01	2	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	5/16/02	51	wet	11	30
084-01.0	SW Hous. River mouth/S. Lighthouse	5/20/02	51	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	6/10/02	2	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	10/1/02	2	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	10/15/02	22	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.0	SW Hous. River mouth/S. Lighthouse	4/28/03	2	wet	15	10
084-01.0	SW Hous. River mouth/S. Lighthouse	6/9/03	28	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	8/5/03	51	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	8/11/03	28	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	12/19/03	11	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	4/26/04	50	wet	21	30
084-01.0	SW Hous. River mouth/S. Lighthouse	7/15/04	4	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	8/6/04	22	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	9/21/04	51	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	3/30/05	81	wet	12	40
084-01.0	SW Hous. River mouth/S. Lighthouse	4/5/05	3	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	5/31/05	1	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	10/27/05	81	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	4/6/06	2	wet	17	40
084-01.0	SW Hous. River mouth/S. Lighthouse	4/27/06	2	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	5/18/06	44	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	6/8/06	10	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	8/30/06	171	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	12/27/06	79	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	6/6/07	81	wet	11	40
084-01.0	SW Hous. River mouth/S. Lighthouse	7/24/07	6	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	9/12/07	81	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	10/24/07	1	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	10/31/07	18	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	12/3/07	3	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	2/5/08	72	dry	40	57
084-01.0	SW Hous. River mouth/S. Lighthouse	3/11/08	240	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	4/9/08	1	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	6/9/08	81	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	7/28/08	52	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	12/23/08	59	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.0	SW Hous. River mouth/S. Lighthouse	4/1/09	41	dry	37	57
084-01.0	SW Hous. River mouth/S. Lighthouse	6/11/09	60	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	7/27/09	171	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	9/1/09	30	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	9/30/09	2	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	10/26/09	94	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	3/25/10	88	wet	8	10
084-01.0	SW Hous. River mouth/S. Lighthouse	4/26/10	8	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	5/20/10	18	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	6/9/10	1	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	8/25/10	3	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	3/14/11	91	dry	46	15
084-01.0	SW Hous. River mouth/S. Lighthouse	4/18/11	171	wet		
084-01.0	SW Hous. River mouth/S. Lighthouse	4/27/11	9	dry		
084-01.0	SW Hous. River mouth/S. Lighthouse	6/27/11	33	dry		
084-01.2	S. Hous. River	1/6/00	11	wet	6	15
084-01.2	S. Hous. River	4/24/00	51	wet		
084-01.2	S. Hous. River	5/16/00	2	dry		
084-01.2	S. Hous. River	6/8/00	51	wet		
084-01.2	S. Hous. River	6/19/00	2	wet		
084-01.2	S. Hous. River	8/4/00	8	dry		
084-01.2	S. Hous. River	8/10/00	2	dry		
084-01.2	S. Hous. River	8/15/00	2	wet		
084-01.2	S. Hous. River	4/3/01	51	wet	13	40
084-01.2	S. Hous. River	8/13/01	51	wet		
084-01.2	S. Hous. River	9/18/01	6	dry		
084-01.2	S. Hous. River	10/3/01	2	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.2	S. Hous. River	5/16/02	51	wet	9	30
084-01.2	S. Hous. River	5/20/02	51	wet		
084-01.2	S. Hous. River	6/10/02	2	dry		
084-01.2	S. Hous. River	10/1/02	2	dry		
084-01.2	S. Hous. River	10/15/02	8	wet		
084-01.2	S. Hous. River	4/28/03	2	wet	17	30
084-01.2	S. Hous. River	6/9/03	11	wet		
084-01.2	S. Hous. River	8/5/03	51	wet		
084-01.2	S. Hous. River	8/11/03	22	wet		
084-01.2	S. Hous. River	12/19/03	67	wet		
084-01.2	S. Hous. River	4/26/04	28	wet	20	15
084-01.2	S. Hous. River	7/15/04	8	wet		
084-01.2	S. Hous. River	8/6/04	14	wet		
084-01.2	S. Hous. River	9/21/04	51	wet		
084-01.2	S. Hous. River	3/30/05	81	wet	11	40
084-01.2	S. Hous. River	4/5/05	2	wet		
084-01.2	S. Hous. River	5/31/05	1	wet		
084-01.2	S. Hous. River	10/27/05	81	wet		
084-01.2	S. Hous. River	4/6/06	18	wet	32	40
084-01.2	S. Hous. River	4/27/06	1	wet		
084-01.2	S. Hous. River	5/18/06	57	wet		
084-01.2	S. Hous. River	6/8/06	81	wet		
084-01.2	S. Hous. River	8/30/06	171	wet		
084-01.2	S. Hous. River	12/27/06	78	dry		
084-01.2	S. Hous. River	6/6/07	81	wet	13	23
084-01.2	S. Hous. River	7/24/07	4	wet		
084-01.2	S. Hous. River	9/12/07	27	wet		
084-01.2	S. Hous. River	10/24/07	1	dry		
084-01.2	S. Hous. River	10/31/07	37	dry		
084-01.2	S. Hous. River	12/3/07	16	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.2	S. Hous. River	2/5/08	86	dry	32	61
084-01.2	S. Hous. River	3/11/08	260	wet		
084-01.2	S. Hous. River	4/9/08	1	dry		
084-01.2	S. Hous. River	6/9/08	154	wet		
084-01.2	S. Hous. River	7/28/08	64	dry		
084-01.2	S. Hous. River	12/23/08	81	wet		
084-01.2	S. Hous. River	12/26/08	2	wet		
084-01.2	S. Hous. River	4/1/09	5	dry	27	53
084-01.2	S. Hous. River	6/11/09	50	wet		
084-01.2	S. Hous. River	6/19/09	171	wet		
084-01.2	S. Hous. River	7/27/09	50	dry		
084-01.2	S. Hous. River	9/1/09	40	dry		
084-01.2	S. Hous. River	9/30/09	1	dry		
084-01.2	S. Hous. River	10/26/09	114	wet		
084-01.2	S. Hous. River	3/25/10	74	wet	6	10
084-01.2	S. Hous. River	4/26/10	11	wet		
084-01.2	S. Hous. River	5/20/10	12	wet		
084-01.2	S. Hous. River	6/9/10	1	dry		
084-01.2	S. Hous. River	8/25/10	1	wet		
084-01.2	S. Hous. River	3/14/11	150	dry	NA	90
084-01.3	SE Hous. River mouth	1/6/00	4	wet	5	NA
084-01.3	SE Hous. River mouth	4/24/00	8	wet		
084-01.3	SE Hous. River mouth	5/16/00	2	dry		
084-01.3	SE Hous. River mouth	6/8/00	51	wet		
084-01.3	SE Hous. River mouth	6/12/00	2	wet		
084-01.3	SE Hous. River mouth	6/20/00	8	wet		
084-01.3	SE Hous. River mouth	7/18/00	22	wet		
084-01.3	SE Hous. River mouth	8/4/00	2	dry		
084-01.3	SE Hous. River mouth	8/9/00	2	wet		
084-01.3	SE Hous. River mouth	8/10/00	2	dry		
084-01.3	SE Hous. River mouth	8/15/00	8	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.3	SE Hous. River mouth	4/3/01	51	wet	10	23
084-01.3	SE Hous. River mouth	9/18/01	6	dry		
084-01.3	SE Hous. River mouth	10/3/01	4	wet		
084-01.3	SE Hous. River mouth	5/16/02	51	wet	20	30
084-01.3	SE Hous. River mouth	5/20/02	51	wet		
084-01.3	SE Hous. River mouth	6/10/02	11	dry		
084-01.3	SE Hous. River mouth	10/1/02	8	dry		
084-01.3	SE Hous. River mouth	10/15/02	14	wet		
084-01.3	SE Hous. River mouth	4/28/03	2	wet	19	50
084-01.3	SE Hous. River mouth	6/9/03	11	wet		
084-01.3	SE Hous. River mouth	8/5/03	51	wet		
084-01.3	SE Hous. River mouth	8/11/03	50	wet		
084-01.3	SE Hous. River mouth	12/19/03	51	wet		
084-01.3	SE Hous. River mouth	4/26/04	18	wet	9	10
084-01.3	SE Hous. River mouth	7/15/04	4	wet		
084-01.3	SE Hous. River mouth	8/6/04	14	wet		
084-01.3	SE Hous. River mouth	8/25/04	2	dry		
084-01.3	SE Hous. River mouth	9/21/04	36	wet		
084-01.3	SE Hous. River mouth	3/30/05	81	wet	33	40
084-01.3	SE Hous. River mouth	4/5/05	43	wet		
084-01.3	SE Hous. River mouth	5/31/05	4	wet		
084-01.3	SE Hous. River mouth	10/27/05	81	wet		
084-01.3	SE Hous. River mouth	4/6/06	2	wet	9	28
084-01.3	SE Hous. River mouth	4/27/06	1	wet		
084-01.3	SE Hous. River mouth	5/18/06	34	wet		
084-01.3	SE Hous. River mouth	6/8/06	40	wet		
084-01.3	SE Hous. River mouth	7/20/06	15	wet		
084-01.3	SE Hous. River mouth	8/30/06	2	wet		
084-01.3	SE Hous. River mouth	8/31/06	10	wet		
084-01.3	SE Hous. River mouth	12/27/06	64	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.3	SE Hous. River mouth	6/6/07	1	wet	7	NA
084-01.3	SE Hous. River mouth	7/24/07	13	wet		
084-01.3	SE Hous. River mouth	9/12/07	6	wet		
084-01.3	SE Hous. River mouth	10/24/07	8	dry		
084-01.3	SE Hous. River mouth	10/31/07	6	dry		
084-01.3	SE Hous. River mouth	12/3/07	26	wet		
084-01.3	SE Hous. River mouth	2/5/08	50	dry	25	65
084-01.3	SE Hous. River mouth	2/14/08	171	wet		
084-01.3	SE Hous. River mouth	3/11/08	110	wet		
084-01.3	SE Hous. River mouth	4/9/08	1	dry		
084-01.3	SE Hous. River mouth	6/9/08	60	wet		
084-01.3	SE Hous. River mouth	7/28/08	36	dry		
084-01.3	SE Hous. River mouth	12/23/08	81	wet		
084-01.3	SE Hous. River mouth	12/26/08	1	wet		
084-01.3	SE Hous. River mouth	4/1/09	1	dry	22	46
084-01.3	SE Hous. River mouth	6/11/09	34	wet		
084-01.3	SE Hous. River mouth	6/15/09	58	dry		
084-01.3	SE Hous. River mouth	6/19/09	171	wet		
084-01.3	SE Hous. River mouth	6/22/09	64	dry		
084-01.3	SE Hous. River mouth	7/27/09	28	dry		
084-01.3	SE Hous. River mouth	9/1/09	24	dry		
084-01.3	SE Hous. River mouth	9/30/09	1	dry		
084-01.3	SE Hous. River mouth	10/26/09	94	wet		
084-01.3	SE Hous. River mouth	3/25/10	44	wet	6	10
084-01.3	SE Hous. River mouth	4/26/10	13	wet		
084-01.3	SE Hous. River mouth	5/20/10	15	wet		
084-01.3	SE Hous. River mouth	6/9/10	1	dry		
084-01.3	SE Hous. River mouth	8/25/10	1	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.3	SE Hous. River mouth	3/14/11	100	dry	40	40
084-01.3	SE Hous. River mouth	4/18/11	112	wet		
084-01.3	SE Hous. River mouth	4/27/11	10	dry		
084-01.3	SE Hous. River mouth	6/27/11	23	dry		
084-01.6	S. Hous. River offshore	1/6/00	2	wet	5	15
084-01.6	S. Hous. River offshore	4/24/00	36	wet		
084-01.6	S. Hous. River offshore	5/16/00	4	dry		
084-01.6	S. Hous. River offshore	6/8/00	51	wet		
084-01.6	S. Hous. River offshore	6/19/00	2	wet		
084-01.6	S. Hous. River offshore	8/4/00	11	dry		
084-01.6	S. Hous. River offshore	8/10/00	2	dry		
084-01.6	S. Hous. River offshore	8/15/00	2	wet		
084-01.6	S. Hous. River offshore	4/3/01	2	wet	5	15
084-01.6	S. Hous. River offshore	8/13/01	51	wet		
084-01.6	S. Hous. River offshore	9/18/01	4	dry		
084-01.6	S. Hous. River offshore	10/3/01	2	wet		
084-01.6	S. Hous. River offshore	5/16/02	51	wet	8	30
084-01.6	S. Hous. River offshore	5/20/02	50	wet		
084-01.6	S. Hous. River offshore	6/10/02	2	dry		
084-01.6	S. Hous. River offshore	10/1/02	2	dry		
084-01.6	S. Hous. River offshore	10/15/02	4	wet		
084-01.6	S. Hous. River offshore	4/28/03	11	wet	11	10
084-01.6	S. Hous. River offshore	6/9/03	51	wet		
084-01.6	S. Hous. River offshore	8/5/03	2	wet		
084-01.6	S. Hous. River offshore	8/11/03	18	wet		
084-01.6	S. Hous. River offshore	12/19/03	11	wet		
084-01.6	S. Hous. River offshore	4/26/04	8	wet	12	15
084-01.6	S. Hous. River offshore	7/15/04	6	wet		
084-01.6	S. Hous. River offshore	8/6/04	8	wet		
084-01.6	S. Hous. River offshore	9/21/04	51	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.6	S. Hous. River offshore	3/30/05	81	wet	13	40
084-01.6	S. Hous. River offshore	4/5/05	4	wet		
084-01.6	S. Hous. River offshore	5/31/05	1	wet		
084-01.6	S. Hous. River offshore	10/27/05	81	wet		
084-01.6	S. Hous. River offshore	4/6/06	2	wet	8	40
084-01.6	S. Hous. River offshore	4/27/06	1	wet		
084-01.6	S. Hous. River offshore	5/18/06	49	wet		
084-01.6	S. Hous. River offshore	6/8/06	33	wet		
084-01.6	S. Hous. River offshore	8/30/06	2	wet		
084-01.6	S. Hous. River offshore	12/27/06	51	dry		
084-01.6	S. Hous. River offshore	6/6/07	81	wet	7	7
084-01.6	S. Hous. River offshore	7/24/07	13	wet		
084-01.6	S. Hous. River offshore	9/12/07	6	wet		
084-01.6	S. Hous. River offshore	10/24/07	1	dry		
084-01.6	S. Hous. River offshore	10/31/07	9	dry		
084-01.6	S. Hous. River offshore	12/3/07	3	wet		
084-01.6	S. Hous. River offshore	2/5/08	1	dry	8	33
084-01.6	S. Hous. River offshore	3/11/08	84	wet		
084-01.6	S. Hous. River offshore	4/9/08	1	dry		
084-01.6	S. Hous. River offshore	6/9/08	70	wet		
084-01.6	S. Hous. River offshore	7/28/08	2	dry		
084-01.6	S. Hous. River offshore	12/23/08	64	wet		
084-01.6	S. Hous. River offshore	12/26/08	3	wet		
084-01.6	S. Hous. River offshore	4/1/09	6	dry	25	47
084-01.6	S. Hous. River offshore	6/11/09	32	wet		
084-01.6	S. Hous. River offshore	6/19/09	171	wet		
084-01.6	S. Hous. River offshore	7/27/09	92	dry		
084-01.6	S. Hous. River offshore	9/1/09	22	dry		
084-01.6	S. Hous. River offshore	9/30/09	1	dry		
084-01.6	S. Hous. River offshore	10/26/09	92	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-01.6	S. Hous. River offshore	3/25/10	51	wet	6	30
084-01.6	S. Hous. River offshore	4/26/10	5	wet		
084-01.6	S. Hous. River offshore	5/20/10	44	wet		
084-01.6	S. Hous. River offshore	6/9/10	1	dry		
084-01.6	S. Hous. River offshore	8/25/10	1	wet		
084-01.6	S. Hous. River offshore	3/14/11	72	dry	9	40
084-01.6	S. Hous. River offshore	4/18/11	110	wet		
084-01.6	S. Hous. River offshore	4/27/11	1	dry		
084-01.6	S. Hous. River offshore	6/27/11	1	dry		
084-02.0	mouth Hous. River	1/6/00	14	wet	8	12
084-02.0	mouth Hous. River	4/24/00	51	wet		
084-02.0	mouth Hous. River	5/16/00	4	dry		
084-02.0	mouth Hous. River	6/8/00	51	wet		
084-02.0	mouth Hous. River	6/19/00	6	wet		
084-02.0	mouth Hous. River	7/18/00	4	wet		
084-02.0	mouth Hous. River	8/4/00	4	dry		
084-02.0	mouth Hous. River	8/10/00	2	dry		
084-02.0	mouth Hous. River	8/15/00	14	wet		
084-02.0	mouth Hous. River	4/3/01	51	wet	21	40
084-02.0	mouth Hous. River	8/13/01	51	wet		
084-02.0	mouth Hous. River	9/18/01	14	dry		
084-02.0	mouth Hous. River	10/3/01	6	wet		
084-02.0	mouth Hous. River	5/16/02	51	wet	13	50
084-02.0	mouth Hous. River	5/20/02	51	wet		
084-02.0	mouth Hous. River	6/10/02	2	dry		
084-02.0	mouth Hous. River	10/1/02	2	dry		
084-02.0	mouth Hous. River	10/15/02	51	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-02.0	mouth Hous. River	4/28/03	14	wet	57	70
084-02.0	mouth Hous. River	6/9/03	50	wet		
084-02.0	mouth Hous. River	8/5/03	51	wet		
084-02.0	mouth Hous. River	8/11/03	51	wet		
084-02.0	mouth Hous. River	12/19/03	321	wet		
084-02.0	mouth Hous. River	4/26/04	50	wet	22	65
084-02.0	mouth Hous. River	7/15/04	2	wet		
084-02.0	mouth Hous. River	8/6/04	51	wet		
084-02.0	mouth Hous. River	9/21/04	51	wet		
084-02.0	mouth Hous. River	3/30/05	81	wet	45	65
084-02.0	mouth Hous. River	4/5/05	81	wet		
084-02.0	mouth Hous. River	5/31/05	8	wet		
084-02.0	mouth Hous. River	10/27/05	81	wet		
084-02.0	mouth Hous. River	4/6/06	20	wet	31	57
084-02.0	mouth Hous. River	4/27/06	1	wet		
084-02.0	mouth Hous. River	5/18/06	65	wet		
084-02.0	mouth Hous. River	6/8/06	81	wet		
084-02.0	mouth Hous. River	8/30/06	96	wet		
084-02.0	mouth Hous. River	12/27/06	81	dry		
084-02.0	mouth Hous. River	6/6/07	81	wet	43	57
084-02.0	mouth Hous. River	7/24/07	23	wet		
084-02.0	mouth Hous. River	9/12/07	81	wet		
084-02.0	mouth Hous. River	10/24/07	21	dry		
084-02.0	mouth Hous. River	10/31/07	39	dry		
084-02.0	mouth Hous. River	12/3/07	48	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-02.0	mouth Hous. River	2/5/08	210	dry	58* (76%)	65
084-02.0	mouth Hous. River	2/14/08	171	wet		
084-02.0	mouth Hous. River	3/11/08	210	wet		
084-02.0	mouth Hous. River	4/9/08	2	dry		
084-02.0	mouth Hous. River	6/9/08	820	wet		
084-02.0	mouth Hous. River	7/28/08	130	dry		
084-02.0	mouth Hous. River	12/23/08	81	wet		
084-02.0	mouth Hous. River	12/26/08	1	wet		
084-02.0	mouth Hous. River	4/1/09	43	dry	34	57
084-02.0	mouth Hous. River	6/11/09	80	wet		
084-02.0	mouth Hous. River	7/27/09	78	dry		
084-02.0	mouth Hous. River	9/1/09	44	dry		
084-02.0	mouth Hous. River	9/30/09	1	dry		
084-02.0	mouth Hous. River	10/26/09	134	wet		
084-02.0	mouth Hous. River	3/25/10	108	wet	11	30
084-02.0	mouth Hous. River	4/26/10	16	wet		
084-02.0	mouth Hous. River	5/20/10	43	wet		
084-02.0	mouth Hous. River	6/9/10	1	dry		
084-02.0	mouth Hous. River	8/25/10	2	wet		
084-02.0	mouth Hous. River	3/14/11	56	dry	NA	90

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-03.0	S. Laurel Beach Condos. Demarc. Sign	1/6/00	6	wet	3	NA
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/24/00	6	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	5/16/00	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/8/00	6	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/12/00	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/20/00	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	7/18/00	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/4/00	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/8/00	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/9/00	14	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/10/00	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/15/00	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/16/00	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/3/01	51	wet	8	4
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/18/01	4	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/13/01	18	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/15/01	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	9/18/01	8	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/2/01	6	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/3/01	8	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	5/16/02	2	wet	2	NA
084-03.0	S. Laurel Beach Condos. Demarc. Sign	5/20/02	4	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/10/02	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/1/02	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/15/02	4	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/28/03	2	wet	11	30
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/9/03	28	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/5/03	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/11/03	51	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	12/19/03	51	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/26/04	8	wet	7	NA
084-03.0	S. Laurel Beach Condos. Demarc. Sign	7/15/04	8	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/6/04	22	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/25/04	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	9/21/04	8	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	3/30/05	2	wet	13	50
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/5/05	66	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	5/31/05	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/24/05	31	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/27/05	81	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	1/4/06	3	wet	4	7
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/6/06	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/27/06	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	5/18/06	6	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/8/06	60	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/20/06	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	7/20/06	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/29/06	32	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/30/06	6	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/31/06	3	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	11/27/06	7	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	12/27/06	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/6/07	6	wet	5	NA
084-03.0	S. Laurel Beach Condos. Demarc. Sign	7/24/07	7	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	9/12/07	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/24/07	20	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/31/07	1	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	12/3/07	13	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-03.0	S. Laurel Beach Condos. Demarc. Sign	2/5/08	4	dry	3	NA
084-03.0	S. Laurel Beach Condos. Demarc. Sign	2/14/08	6	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	3/11/08	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/9/08	1	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	5/1/08	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/9/08	8	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	7/28/08	23	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	9/11/08	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	12/16/08	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	12/26/08	6	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/1/09	1	dry	4	12
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/11/09	6	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/15/09	52	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/19/09	171	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/22/09	1	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	7/27/09	1	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	9/1/09	1	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	9/30/09	4	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/26/09	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	3/2/10	1	wet	2	NA
084-03.0	S. Laurel Beach Condos. Demarc. Sign	3/18/10	2	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	3/25/10	7	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/26/10	1	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	5/20/10	26	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/9/10	1	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	8/25/10	4	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	10/5/10	1	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-03.0	S. Laurel Beach Condos. Demarc. Sign	3/14/11	1	dry	3	NA
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/18/11	13	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	4/27/11	2	dry		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	5/22/11	4	wet		
084-03.0	S. Laurel Beach Condos. Demarc. Sign	6/27/11	1	dry		
084-03.1	NE Hous. River breakwater	1/6/00	2	wet	6	8
084-03.1	NE Hous. River breakwater	4/24/00	4	wet		
084-03.1	NE Hous. River breakwater	5/16/00	2	dry		
084-03.1	NE Hous. River breakwater	6/8/00	51	wet		
084-03.1	NE Hous. River breakwater	6/12/00	51	wet		
084-03.1	NE Hous. River breakwater	6/20/00	2	wet		
084-03.1	NE Hous. River breakwater	7/18/00	8	wet		
084-03.1	NE Hous. River breakwater	8/4/00	2	dry		
084-03.1	NE Hous. River breakwater	8/9/00	28	wet		
084-03.1	NE Hous. River breakwater	8/10/00	2	dry		
084-03.1	NE Hous. River breakwater	8/15/00	6	wet		
084-03.1	NE Hous. River breakwater	4/3/01	51	wet	9	15
084-03.1	NE Hous. River breakwater	8/13/01	8	wet		
084-03.1	NE Hous. River breakwater	9/18/01	4	dry		
084-03.1	NE Hous. River breakwater	10/3/01	4	wet		
084-03.1	NE Hous. River breakwater	5/16/02	2	wet	7	NA
084-03.1	NE Hous. River breakwater	5/20/02	18	wet		
084-03.1	NE Hous. River breakwater	6/10/02	8	dry		
084-03.1	NE Hous. River breakwater	10/1/02	11	dry		
084-03.1	NE Hous. River breakwater	10/15/02	6	wet		
084-03.1	NE Hous. River breakwater	4/28/03	2	wet	14	30
084-03.1	NE Hous. River breakwater	6/9/03	14	wet		
084-03.1	NE Hous. River breakwater	8/5/03	14	wet		
084-03.1	NE Hous. River breakwater	8/11/03	36	wet		
084-03.1	NE Hous. River breakwater	12/19/03	51	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-03.1	NE Hous. River breakwater	4/26/04	14	wet	17	30
084-03.1	NE Hous. River breakwater	7/15/04	11	wet		
084-03.1	NE Hous. River breakwater	8/6/04	50	wet		
084-03.1	NE Hous. River breakwater	8/25/04	4	dry		
084-03.1	NE Hous. River breakwater	9/21/04	51	wet		
084-03.1	NE Hous. River breakwater	3/30/05	81	wet	27	65
084-03.1	NE Hous. River breakwater	4/5/05	81	wet		
084-03.1	NE Hous. River breakwater	5/31/05	1	wet		
084-03.1	NE Hous. River breakwater	10/27/05	81	wet		
084-03.1	NE Hous. River breakwater	4/6/06	4	wet	7	4
084-03.1	NE Hous. River breakwater	4/27/06	3	wet		
084-03.1	NE Hous. River breakwater	5/18/06	18	wet		
084-03.1	NE Hous. River breakwater	6/8/06	81	wet		
084-03.1	NE Hous. River breakwater	7/20/06	1	wet		
084-03.1	NE Hous. River breakwater	8/30/06	6	wet		
084-03.1	NE Hous. River breakwater	12/27/06	8	dry		
084-03.1	NE Hous. River breakwater	6/6/07	1	wet	4	NA
084-03.1	NE Hous. River breakwater	7/24/07	2	wet		
084-03.1	NE Hous. River breakwater	9/12/07	1	wet		
084-03.1	NE Hous. River breakwater	10/24/07	12	dry		
084-03.1	NE Hous. River breakwater	10/31/07	5	dry		
084-03.1	NE Hous. River breakwater	12/3/07	16	wet		
084-03.1	NE Hous. River breakwater	2/5/08	10	dry	12	3
084-03.1	NE Hous. River breakwater	2/14/08	22	wet		
084-03.1	NE Hous. River breakwater	3/11/08	108	wet		
084-03.1	NE Hous. River breakwater	4/9/08	1	dry		
084-03.1	NE Hous. River breakwater	6/9/08	8	wet		
084-03.1	NE Hous. River breakwater	7/28/08	24	dry		
084-03.1	NE Hous. River breakwater	12/23/08	51	wet		
084-03.1	NE Hous. River breakwater	12/26/08	2	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-03.1	NE Hous. River breakwater	4/1/09	1	dry	10	15
084-03.1	NE Hous. River breakwater	6/11/09	12	wet		
084-03.1	NE Hous. River breakwater	6/15/09	88	dry		
084-03.1	NE Hous. River breakwater	6/22/09	41	dry		
084-03.1	NE Hous. River breakwater	7/27/09	8	dry		
084-03.1	NE Hous. River breakwater	9/1/09	4	dry		
084-03.1	NE Hous. River breakwater	9/30/09	4	dry		
084-03.1	NE Hous. River breakwater	10/26/09	14	wet		
084-03.1	NE Hous. River breakwater	3/25/10	10	wet	3	NA
084-03.1	NE Hous. River breakwater	4/26/10	1	wet		
084-03.1	NE Hous. River breakwater	5/20/10	5	wet		
084-03.1	NE Hous. River breakwater	8/25/10	1	wet		
084-03.1	NE Hous. River breakwater	10/5/10	5	dry		
084-03.1	NE Hous. River breakwater	3/14/11	80	dry	7	15
084-03.1	NE Hous. River breakwater	4/18/11	24	wet		
084-03.1	NE Hous. River breakwater	4/27/11	1	dry		
084-03.1	NE Hous. River breakwater	6/27/11	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	1/6/00	2	wet	2	NA
084-04.1	S. Wildemere Beach-St Gabriels	4/24/00	8	wet		
084-04.1	S. Wildemere Beach-St Gabriels	5/16/00	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	6/8/00	8	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/12/00	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/20/00	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	7/18/00	11	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/4/00	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	8/8/00	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/9/00	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/10/00	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	8/15/00	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/16/00	2	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-04.1	S. Wildemere Beach-St Gabriels	4/3/01	2	wet	3	NA
084-04.1	S. Wildemere Beach-St Gabriels	6/18/01	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/13/01	22	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/15/01	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	9/18/01	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	10/3/01	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	5/16/02	4	wet	2	NA
084-04.1	S. Wildemere Beach-St Gabriels	5/20/02	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/10/02	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	10/1/02	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	10/15/02	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	4/28/03	2	wet	3	NA
084-04.1	S. Wildemere Beach-St Gabriels	6/9/03	4	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/5/03	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/11/03	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	12/19/03	8	wet		
084-04.1	S. Wildemere Beach-St Gabriels	4/26/04	2	wet	2	NA
084-04.1	S. Wildemere Beach-St Gabriels	7/15/04	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/25/04	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	9/21/04	8	wet		
084-04.1	S. Wildemere Beach-St Gabriels	3/30/05	1	wet	4	10
084-04.1	S. Wildemere Beach-St Gabriels	4/5/05	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	5/31/05	2	wet		
084-04.1	S. Wildemere Beach-St Gabriels	10/24/05	7	wet		
084-04.1	S. Wildemere Beach-St Gabriels	10/27/05	58	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-04.1	S. Wildemere Beach-St Gabriels	4/6/06	1	wet	3	NA
084-04.1	S. Wildemere Beach-St Gabriels	4/27/06	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	5/18/06	3	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/8/06	4	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/20/06	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	7/20/06	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/29/06	29	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/30/06	11	wet		
084-04.1	S. Wildemere Beach-St Gabriels	8/31/06	5	wet		
084-04.1	S. Wildemere Beach-St Gabriels	11/27/06	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	12/27/06	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	1/4/07	1	wet	2	NA
084-04.1	S. Wildemere Beach-St Gabriels	6/6/07	4	wet		
084-04.1	S. Wildemere Beach-St Gabriels	7/24/07	3	wet		
084-04.1	S. Wildemere Beach-St Gabriels	9/12/07	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	10/24/07	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	10/31/07	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	12/3/07	5	wet		
084-04.1	S. Wildemere Beach-St Gabriels	2/5/08	5	dry	2	NA
084-04.1	S. Wildemere Beach-St Gabriels	2/14/08	3	wet		
084-04.1	S. Wildemere Beach-St Gabriels	3/11/08	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	4/9/08	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	5/1/08	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/9/08	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	7/28/08	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	9/11/08	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	12/16/08	11	wet		
084-04.1	S. Wildemere Beach-St Gabriels	12/26/08	2	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-04.1	S. Wildemere Beach-St Gabriels	4/1/09	1	dry	3	1
084-04.1	S. Wildemere Beach-St Gabriels	6/11/09	35	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/15/09	4	dry		
084-04.1	S. Wildemere Beach-St Gabriels	6/19/09	29	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/22/09	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	7/27/09	2	dry		
084-04.1	S. Wildemere Beach-St Gabriels	9/1/09	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	9/30/09	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	10/26/09	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	3/2/10	1	wet	2	NA
084-04.1	S. Wildemere Beach-St Gabriels	3/18/10	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	3/25/10	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	4/26/10	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	5/20/10	12	wet		
084-04.1	S. Wildemere Beach-St Gabriels	6/9/10	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	8/25/10	24	wet		
084-04.1	S. Wildemere Beach-St Gabriels	10/5/10	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	3/14/11	1	dry	1	NA
084-04.1	S. Wildemere Beach-St Gabriels	4/18/11	1	wet		
084-04.1	S. Wildemere Beach-St Gabriels	4/27/11	1	dry		
084-04.1	S. Wildemere Beach-St Gabriels	5/22/11	3	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-06.2	between Hous. breakwater and Charles Island	1/6/00	2	wet	3	5
084-06.2	between Hous. breakwater and Charles Island	4/24/00	4	wet		
084-06.2	between Hous. breakwater and Charles Island	5/16/00	2	dry		
084-06.2	between Hous. breakwater and Charles Island	6/8/00	51	wet		
084-06.2	between Hous. breakwater and Charles Island	6/12/00	2	wet		
084-06.2	between Hous. breakwater and Charles Island	6/20/00	2	wet		
084-06.2	between Hous. breakwater and Charles Island	8/4/00	51	dry		
084-06.2	between Hous. breakwater and Charles Island	8/8/00	2	wet		
084-06.2	between Hous. breakwater and Charles Island	8/9/00	6	wet		
084-06.2	between Hous. breakwater and Charles Island	8/10/00	2	dry		
084-06.2	between Hous. breakwater and Charles Island	8/15/00	2	wet		
084-06.2	between Hous. breakwater and Charles Island	8/16/00	2	wet		
084-06.2	between Hous. breakwater and Charles Island	11/13/00	4	wet		
084-06.2	between Hous. breakwater and Charles Island	4/3/01	18	wet	4	4
084-06.2	between Hous. breakwater and Charles Island	6/18/01	2	wet		
084-06.2	between Hous. breakwater and Charles Island	8/13/01	51	wet		
084-06.2	between Hous. breakwater and Charles Island	8/15/01	2	dry		
084-06.2	between Hous. breakwater and Charles Island	9/17/01	2	dry		
084-06.2	between Hous. breakwater and Charles Island	9/18/01	2	dry		
084-06.2	between Hous. breakwater and Charles Island	10/3/01	2	wet		
084-06.2	between Hous. breakwater and Charles Island	5/16/02	2	wet	3	NA
084-06.2	between Hous. breakwater and Charles Island	5/20/02	8	wet		
084-06.2	between Hous. breakwater and Charles Island	6/10/02	8	dry		
084-06.2	between Hous. breakwater and Charles Island	10/1/02	2	dry		
084-06.2	between Hous. breakwater and Charles Island	10/15/02	6	wet		
084-06.2	between Hous. breakwater and Charles Island	10/29/02	2	dry		
084-06.2	between Hous. breakwater and Charles Island	4/28/03	2	wet	8	10
084-06.2	between Hous. breakwater and Charles Island	6/9/03	2	wet		
084-06.2	between Hous. breakwater and Charles Island	8/5/03	14	wet		
084-06.2	between Hous. breakwater and Charles Island	8/11/03	22	wet		
084-06.2	between Hous. breakwater and Charles Island	12/19/03	50	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-06.2	between Hous. breakwater and Charles Island	4/26/04	2	wet	3	NA
084-06.2	between Hous. breakwater and Charles Island	7/15/04	2	wet		
084-06.2	between Hous. breakwater and Charles Island	8/6/04	6	wet		
084-06.2	between Hous. breakwater and Charles Island	8/25/04	2	dry		
084-06.2	between Hous. breakwater and Charles Island	9/21/04	18	wet		
084-06.2	between Hous. breakwater and Charles Island	3/30/05	81	wet	18	30
084-06.2	between Hous. breakwater and Charles Island	4/5/05	28	wet		
084-06.2	between Hous. breakwater and Charles Island	5/31/05	1	wet		
084-06.2	between Hous. breakwater and Charles Island	10/24/05	12	wet		
084-06.2	between Hous. breakwater and Charles Island	10/27/05	67	wet		
084-06.2	between Hous. breakwater and Charles Island	4/6/06	1	wet	4	NA
084-06.2	between Hous. breakwater and Charles Island	4/27/06	1	wet		
084-06.2	between Hous. breakwater and Charles Island	5/18/06	5	wet		
084-06.2	between Hous. breakwater and Charles Island	6/8/06	23	wet		
084-06.2	between Hous. breakwater and Charles Island	6/20/06	1	wet		
084-06.2	between Hous. breakwater and Charles Island	7/20/06	1	wet		
084-06.2	between Hous. breakwater and Charles Island	8/29/06	60	wet		
084-06.2	between Hous. breakwater and Charles Island	8/30/06	20	wet		
084-06.2	between Hous. breakwater and Charles Island	8/31/06	1	wet		
084-06.2	between Hous. breakwater and Charles Island	11/27/06	18	dry		
084-06.2	between Hous. breakwater and Charles Island	12/27/06	1	dry		
084-06.2	between Hous. breakwater and Charles Island	1/4/07	2	wet	1	NA
084-06.2	between Hous. breakwater and Charles Island	6/6/07	1	wet		
084-06.2	between Hous. breakwater and Charles Island	7/24/07	3	wet		
084-06.2	between Hous. breakwater and Charles Island	9/12/07	2	wet		
084-06.2	between Hous. breakwater and Charles Island	10/24/07	1	dry		
084-06.2	between Hous. breakwater and Charles Island	10/31/07	1	dry		
084-06.2	between Hous. breakwater and Charles Island	12/3/07	1	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-06.2	between Hous. breakwater and Charles Island	2/5/08	4	dry	2	NA
084-06.2	between Hous. breakwater and Charles Island	2/14/08	1	wet		
084-06.2	between Hous. breakwater and Charles Island	3/11/08	1	wet		
084-06.2	between Hous. breakwater and Charles Island	4/9/08	1	dry		
084-06.2	between Hous. breakwater and Charles Island	5/1/08	1	wet		
084-06.2	between Hous. breakwater and Charles Island	6/9/08	1	wet		
084-06.2	between Hous. breakwater and Charles Island	7/28/08	6	dry		
084-06.2	between Hous. breakwater and Charles Island	9/11/08	1	wet		
084-06.2	between Hous. breakwater and Charles Island	12/16/08	9	wet		
084-06.2	between Hous. breakwater and Charles Island	12/23/08	1	wet		
084-06.2	between Hous. breakwater and Charles Island	12/26/08	1	wet		
084-06.2	between Hous. breakwater and Charles Island	4/1/09	1	dry	3	3
084-06.2	between Hous. breakwater and Charles Island	6/11/09	4	wet		
084-06.2	between Hous. breakwater and Charles Island	6/15/09	4	dry		
084-06.2	between Hous. breakwater and Charles Island	6/19/09	114	wet		
084-06.2	between Hous. breakwater and Charles Island	6/22/09	1	dry		
084-06.2	between Hous. breakwater and Charles Island	7/27/09	1	dry		
084-06.2	between Hous. breakwater and Charles Island	9/1/09	2	dry		
084-06.2	between Hous. breakwater and Charles Island	9/30/09	1	dry		
084-06.2	between Hous. breakwater and Charles Island	10/26/09	8	wet		
084-06.2	between Hous. breakwater and Charles Island	3/2/10	1	wet	2	NA
084-06.2	between Hous. breakwater and Charles Island	3/18/10	1	wet		
084-06.2	between Hous. breakwater and Charles Island	3/25/10	3	wet		
084-06.2	between Hous. breakwater and Charles Island	4/26/10	1	wet		
084-06.2	between Hous. breakwater and Charles Island	5/20/10	18	wet		
084-06.2	between Hous. breakwater and Charles Island	6/9/10	1	dry		
084-06.2	between Hous. breakwater and Charles Island	8/25/10	1	wet		
084-06.2	between Hous. breakwater and Charles Island	10/5/10	4	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-06.2	between Hous. breakwater and Charles Island	3/14/11	1	dry	3	NA
084-06.2	between Hous. breakwater and Charles Island	4/18/11	27	wet		
084-06.2	between Hous. breakwater and Charles Island	4/27/11	1	dry		
084-06.2	between Hous. breakwater and Charles Island	5/22/11	1	wet		
084-06.2	between Hous. breakwater and Charles Island	6/27/11	4	dry		
084-06.4	offshore S. station 6.3	8/15/00	2	wet	2	NA
084-06.4	offshore S. station 6.3	8/16/00	2	wet		
084-06.4	offshore S. station 6.3	11/13/00	2	wet		
084-06.4	offshore S. station 6.3	4/3/01	2	wet	4	10
084-06.4	offshore S. station 6.3	8/13/01	51	wet		
084-06.4	offshore S. station 6.3	8/15/01	2	dry		
084-06.4	offshore S. station 6.3	9/18/01	4	dry		
084-06.4	offshore S. station 6.3	10/3/01	2	wet		
084-06.4	offshore S. station 6.3	5/16/02	18	wet	4	NA
084-06.4	offshore S. station 6.3	5/20/02	22	wet		
084-06.4	offshore S. station 6.3	6/10/02	2	dry		
084-06.4	offshore S. station 6.3	10/1/02	2	dry		
084-06.4	offshore S. station 6.3	10/15/02	2	wet		
084-06.4	offshore S. station 6.3	10/29/02	2	dry		
084-06.4	offshore S. station 6.3	4/28/03	2	wet	8	NA
084-06.4	offshore S. station 6.3	6/9/03	28	wet		
084-06.4	offshore S. station 6.3	8/5/03	18	wet		
084-06.4	offshore S. station 6.3	8/11/03	11	wet		
084-06.4	offshore S. station 6.3	12/19/03	4	wet		
084-06.4	offshore S. station 6.3	4/26/04	2	wet	4	NA
084-06.4	offshore S. station 6.3	7/15/04	11	wet		

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-06.4	offshore S. station 6.3	8/6/04	2	wet		
084-06.4	offshore S. station 6.3	8/25/04	2	dry		
084-06.4	offshore S. station 6.3	9/21/04	28	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-06.4	offshore S. station 6.3	3/30/05	81	wet	14	30
084-06.4	offshore S. station 6.3	4/5/05	10	wet		
084-06.4	offshore S. station 6.3	5/31/05	1	wet		
084-06.4	offshore S. station 6.3	10/24/05	9	wet		
084-06.4	offshore S. station 6.3	10/27/05	81	wet		
084-06.4	offshore S. station 6.3	4/6/06	1	wet	5	NA
084-06.4	offshore S. station 6.3	4/27/06	3	wet		
084-06.4	offshore S. station 6.3	5/18/06	24	wet		
084-06.4	offshore S. station 6.3	6/8/06	3	wet		
084-06.4	offshore S. station 6.3	7/20/06	1	wet		
084-06.4	offshore S. station 6.3	8/29/06	26	wet		
084-06.4	offshore S. station 6.3	8/30/06	1	wet		
084-06.4	offshore S. station 6.3	8/31/06	1	wet		
084-06.4	offshore S. station 6.3	11/27/06	81	dry		
084-06.4	offshore S. station 6.3	12/27/06	9	dry		
084-06.4	offshore S. station 6.3	1/4/07	5	wet	3	NA
084-06.4	offshore S. station 6.3	6/6/07	7	wet		
084-06.4	offshore S. station 6.3	7/24/07	1	wet		
084-06.4	offshore S. station 6.3	9/12/07	13	wet		
084-06.4	offshore S. station 6.3	10/24/07	4	dry		
084-06.4	offshore S. station 6.3	10/31/07	2	dry		
084-06.4	offshore S. station 6.3	12/3/07	1	wet		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-06.4	offshore S. station 6.3	2/5/08	15	dry	5	NA
084-06.4	offshore S. station 6.3	2/14/08	11	wet		
084-06.4	offshore S. station 6.3	3/11/08	1	wet		
084-06.4	offshore S. station 6.3	4/9/08	1	dry		
084-06.4	offshore S. station 6.3	5/1/08	1	wet		
084-06.4	offshore S. station 6.3	6/9/08	29	wet		
084-06.4	offshore S. station 6.3	7/28/08	26	dry		
084-06.4	offshore S. station 6.3	9/11/08	1	wet		
084-06.4	offshore S. station 6.3	12/16/08	32	wet		
084-06.4	offshore S. station 6.3	12/23/08	16	wet		
084-06.4	offshore S. station 6.3	12/26/08	1	wet		
084-06.4	offshore S. station 6.3	4/1/09	2	dry	5	1
084-06.4	offshore S. station 6.3	6/11/09	8	wet		
084-06.4	offshore S. station 6.3	6/15/09	18	dry		
084-06.4	offshore S. station 6.3	6/19/09	81	wet		
084-06.4	offshore S. station 6.3	6/22/09	2	dry		
084-06.4	offshore S. station 6.3	7/27/09	9	dry		
084-06.4	offshore S. station 6.3	9/1/09	3	dry		
084-06.4	offshore S. station 6.3	9/30/09	1	dry		
084-06.4	offshore S. station 6.3	10/26/09	1	wet		
084-06.4	offshore S. station 6.3	3/2/10	1	wet	3	3
084-06.4	offshore S. station 6.3	3/18/10	1	wet		
084-06.4	offshore S. station 6.3	3/25/10	22	wet		
084-06.4	offshore S. station 6.3	4/26/10	2	wet		
084-06.4	offshore S. station 6.3	5/20/10	42	wet		
084-06.4	offshore S. station 6.3	6/9/10	1	dry		
084-06.4	offshore S. station 6.3	8/25/10	2	wet		
084-06.4	offshore S. station 6.3	10/5/10	1	dry		

Single sample fecal coliform data (colonies/100 mL) from all monitoring stations on Segment 6: LIS CB Midshore - Milford Point (CT-C3_020) with annual geometric means and reduction goals for samples

Station Name	Station Location	Date	Result	Wet/Dry	Geo Mean	Reduction of Exceeding Samples
084-06.4	offshore S. station 6.3	3/14/11	23	dry	7	10
084-06.4	offshore S. station 6.3	4/18/11	47	wet		
084-06.4	offshore S. station 6.3	4/27/11	1	dry		
084-06.4	offshore S. station 6.3	5/22/11	18	wet		
084-06.4	offshore S. station 6.3	6/27/11	1	dry		

Shaded cells indicate an exceedance of water quality criteria

†Average of two duplicate samples

** Weather conditions for selected data taken from Hartford because local station had missing data

*Indicates geometric mean and 90% less than values used to calculate the percent reduction

Wet and dry weather fecal coliform (colonies/100 mL) geometric mean values for all monitoring stations on Segment 6: LIS CB Midshore – Milford Point (CT-C3_020)

Station Name	Station Location	Years Sampled	Number of Samples		Geometric Mean		
			Wet	Dry	All	Wet	Dry
084-01.0	SW Housatonic River mouth/ S. Lighthouse	2000-2011	43	19	16	20	10
084-01.2	S. Housatonic River	2000-2011	44	18	15	20	8
084-01.3	SE Housatonic River mouth	2000-2011	50	23	13	15	8
084-01.6	S. Housatonic River offshore	2000-2011	45	20	9	13	4
084-02.0	mouth Housaonic River	2000-2011	45	18	26	35	12
084-03.0	S. Laurel Beach Condos. Demarc. Sign	2000-2011	64	26	4	5	2
084-03.1	NE Housatonic River breakwater	2000-2011	49	23	8	10	6
084-04.1	S. Wildemere Beach-St Gabriels	2000-2011	62	26	2	3	1
084-06.2	between Housatonic Breakwater and Charles Island	2000-2011	64	28	3	4	2
084-06.4	offshore S. station 6.3	2000-2011	55	24	5	5	3

Shaded cells indicate an exceedance of water quality criteria

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